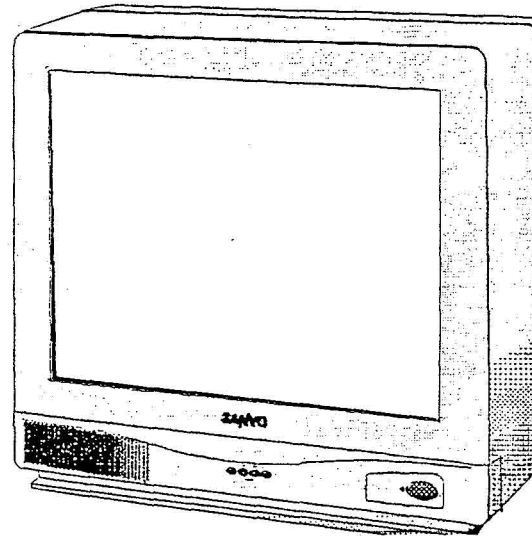


Service Manual

Colour Television

CHASSIS No 2096
EC4A TXT



INDEX

1.-SAFETY INSTRUCTIONS.....	1
1.1.- WARNING.....	1
1.2.- PRECAUTION AGAINST X-RAYS.....	1
2.-TECHNICAL CHARACTERISTICS.....	2
2.1.-SAFETY.....	2
2.2.-EMC (Electromagnetic Compatibility).....	2
3.-SPECIAL MODE FOR FACTORY.....	2
4.- CONFIGURATION CODE OPTIONS(OPCODE).....	2
5.-PROCEDURE OF NON VOLATILE MEMORY (NVM) REPLACEMENT, IC125.....	3
6.-DESCRIPTION OF HOTEL MODE.....	3
7.-ACTIVATION OF THE INITIAL AUTOMATIC CHANNEL-SEARCH.....	3
8.- BLOCK DIAGRAM.....	4
9.- SERVICE ADJUSTMENT LOCATIONS.....	5
10.- ADJUSTMENT.....	6
10.1.- Notes about the adjustment.....	6
11.- C2161TX-P CABINET PARTS LIST.....	7
12.- C2170TX-P CABINET PARTS LIST.....	8
13.- CHASSIS ELECTRICAL PARTS LIST.....	9

Give complete "SERVICE PART No" for parts order or servicing, it is shown on the rating sheet on the cabinet back of the TV set.

Note

This TV receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specifications for the design specifications.

1.-SAFETY INSTRUCTIONS.

Read this page before doing any operation of adjustment, maintenance or repair the TV set described.

Only skilled personnel of Sanyo Technical Service should do the adjustment, maintenance or repair of TV set.

1.1.- WARNING.


For the correct and safe use of the TV set, it is essential that the service personnel follow the process of safety generally accepted and the safety precautions specified in this manual.

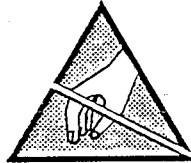
An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary side of the converter transformer of the set.

1.2.- PRECAUTION AGAINST X-RAYS.

The primary source of X-RADIATION in the television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emissions. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X-RADIATION. To avoid such hazards, the high voltage must be maintained within specified limit. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for +B1 volt power supply adjustment, and high voltage adjustment to maintain the high voltage within the specified limits.

COMPLIANCE TO STANDARDS

All of those marked with * or  must be replaced with original parts



WARNING! This TV set contains components which are particularly sensitive to static electricity (ESD). It is recommended that all due precaution be taken handling integrated circuits and semiconductors.

2.-TECHNICAL CHARACTERISTICS

Cathode-ray tubes	In-Line gun type.21" (54 cm)
Tuning-system	Voltage synthesis, 50 programs in non-volatile memory, AFT, fine tuning, automatic, semiautomatic and manual channel-search.
Program selection	Sequential selection from the controls on the set. Direct selection of any program from the remote-control device.
Receiving channel	E2.....E4; S1.....S10 E5.....E12; S11.....S41 E21.....E69
Reception system	Systems D/K and B/G
Colour system	PAL
Audio Power	Power-rating 3,5 watts. (RMS) 10% Distortion
Number of speakers	1 Full Range 8 Ω
Aerial	External aerial-socket 75 ohms IEC.
AV connectors	1 Scart connector 21-pin standard CENELEC AV/RGB. 1 RCA type video input (Back cover) 1 RCA type audio input (Back cover)
Power source	220V.....240V. AC 50 Hz
Power consumption	80 Watts. (maximum consumption). 5 Watts. (Stand-by condition)
Clock function	
Timer function	Switch on, off and alarm time delay are programmable in OSD over 24 hours.
Teletext	Flof and List 1.5 level. Polish TXT included.
Hotel mode	This TV set has the possibility of being programmed in Hotel mode.

2.1.-SAFETY.

It fulfils the safety requirements established in the regulation.

- EN 60065:1993.

2.2.-EMC (Electromagnetic Compatibility).

It fulfils the EMC requirements established in the regulation.

- EN 55013:1990.
- EN 55013:1990/A12:1994
- EN 55020:1994.
- EN 60555-2:1987.

3.-SPECIAL MODE FOR FACTORY

The factory mode is a special TV working mode, thought to aid the manufacturing process and it is identified the message "FACTORY". This mode is not intended for customer use..

The Factory mode differences with respect to normal mode are the followings:

- 1.- The TV set does not pass to standby mode after 10 min. without aerial signal input. Instead it remains switched on.
- 2.- The adjustments speed is four times quicker.
- 3.- The standby mode is disabled.

To take TV set out of Factory mode, push the key **TIMER** of remote control.

4.- CONFIGURATION CODE OPTIONS(OPCODE)

The Opcode in this models is **22** (D/K and B/G with Polish TXT).

In order to see the present Opcode in NVM, you have to short circuit the carcass of front keys with R146 (jack side). Then the code will appear in screen during several seconds. In this time it is possible to change it by using the numerical keys of remote control.

5.-PROCEDURE OF NON VOLATILE MEMORY (NVM) REPLACEMENT, IC125:

In case of servicing, after NVM replacement, the following points must be checked:

- The Opcode (configuration code) is the right one.
Described in point 4
- The TV is not in FACTORY mode.
Described in point 3
- The Hotel mode is correct.
Described in point 6
- The picture and sound adjustments are correct
Described in point 10
- The OSD phase adjustment is correct.
Described in point 10

6.-DESCRIPTION OF HOTEL MODE.

By defect the TV set switches on with the program in which it was switched off, but it is also possible to force it to switch on in a program that can be chosen between the 1 and 8 or AV.

The TV set has a special mode of operation that is adapted for use in hotels, hospitals, etc. In this case the maximum volume level is limited to the volume chosen when the hotel mode is enabled. Furthermore, in this mode it is not possible to do channel searching neither to modify the fine tuning control.

These software configurations are stored in the non volatile memory and therefore they remain even though the TV set is disconnected from the power supply. The Hotel mode configuration can be changed by pushing the **SET** front key and without loosing it, pushing the key **SIZE** of remote control.

00 HOTEL

The first, most significant digit indicates whether Hotel mode is chosen or not

- 0 ⇔ Normal mode
- 1 ⇔ Hotel mode

The last, least significant digit indicates the programme in which the set switches on

- 0 ⇔ The same as it was selected when the TV set was switched off.
- 1 ⇔ Always programme position 1.
- 2 ⇔ Always programme position 2.

-
- 8 ⇔ Always programme position 8.
- 9 ⇔ Always AV mode.

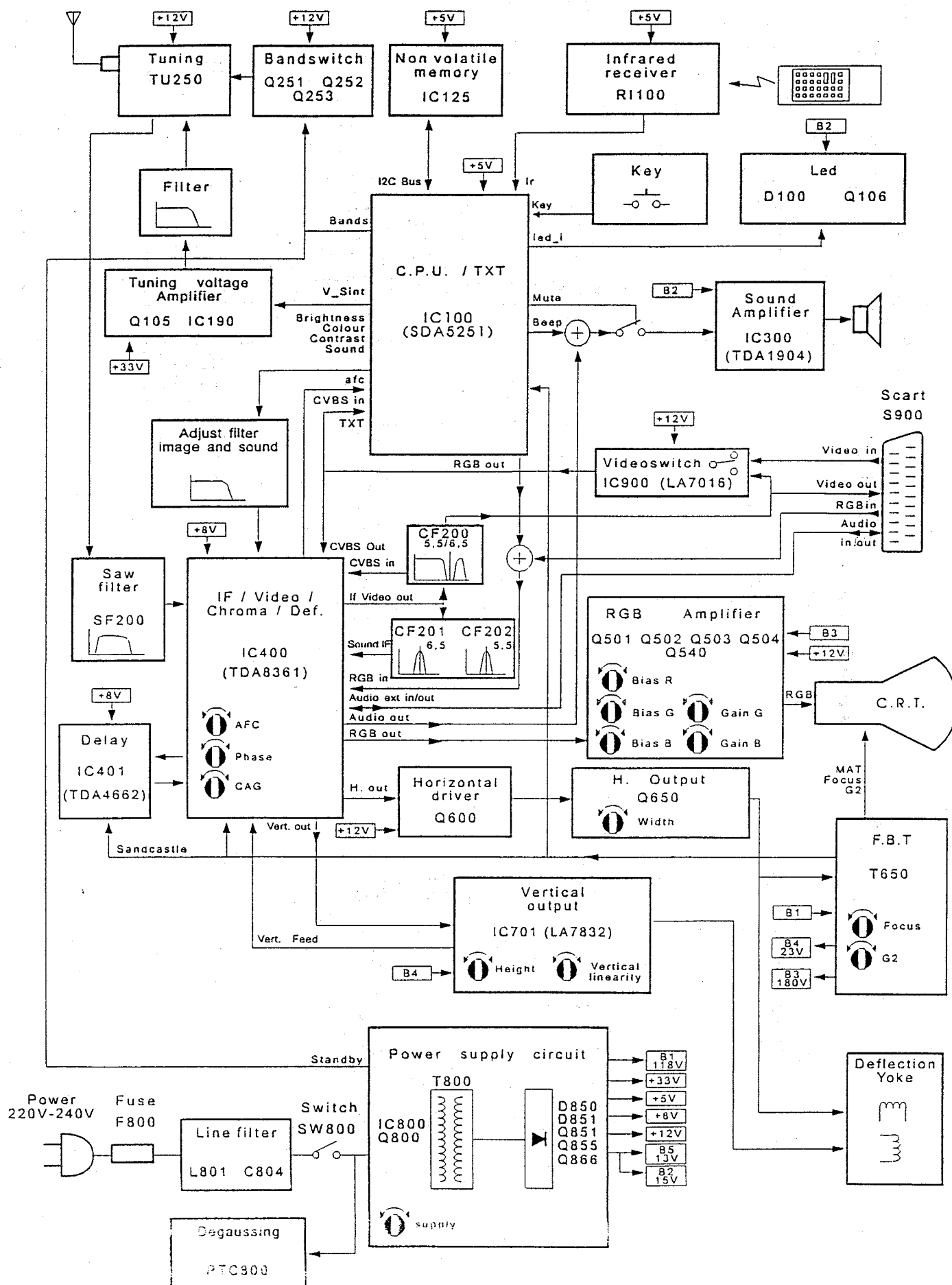
The wanted code should be introduced with the numerical keys of remote control. Always to push the complete code.

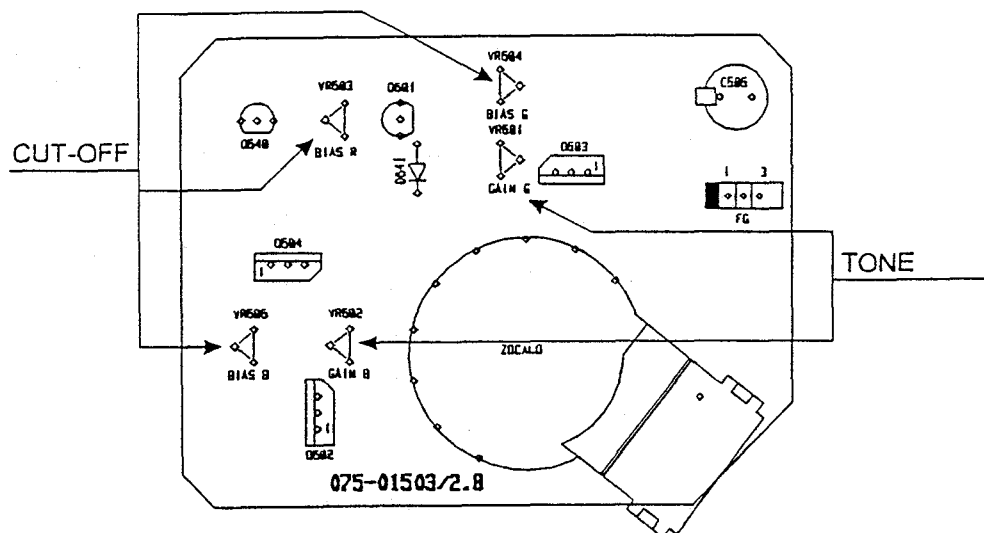
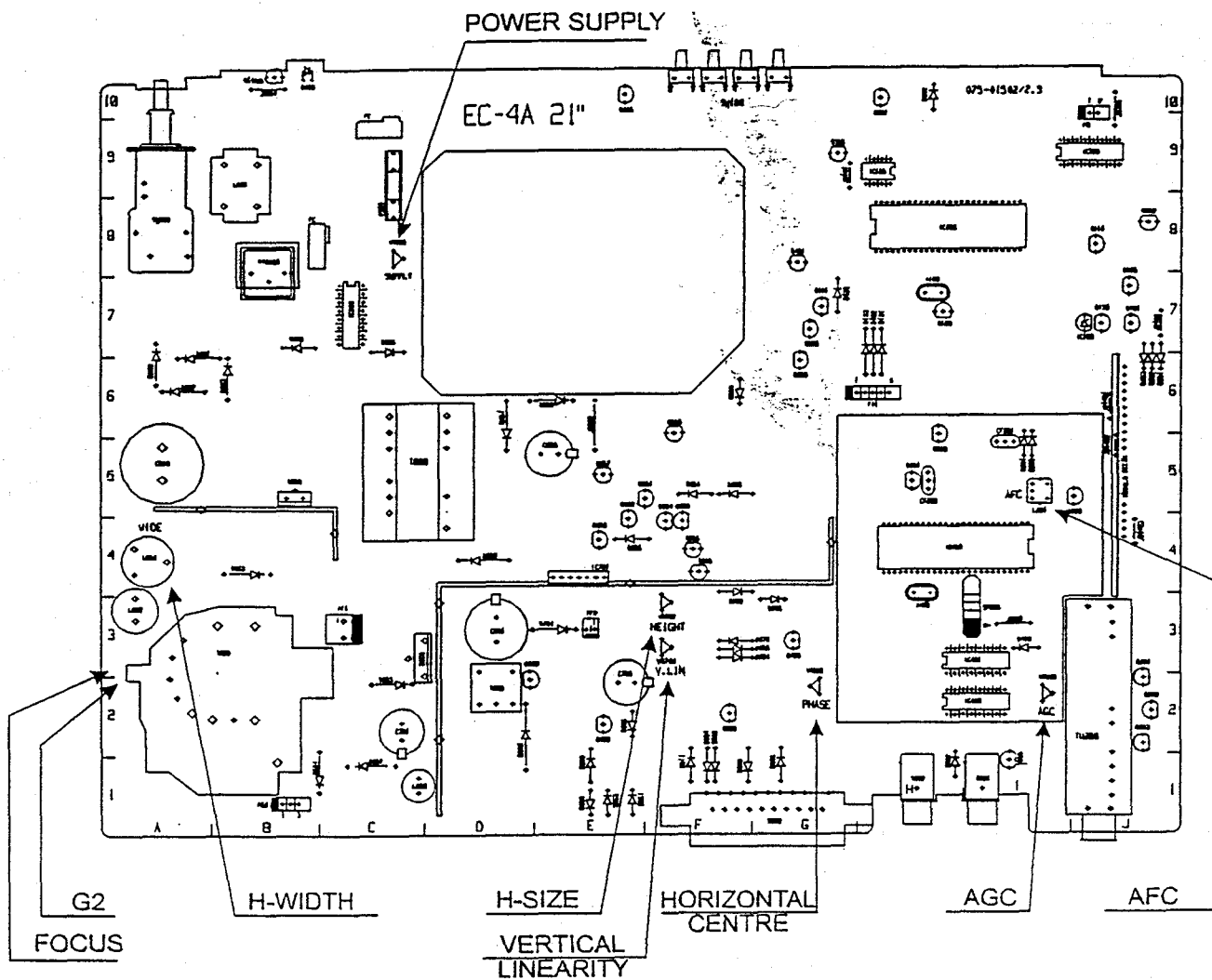
Example:

- 00 ⇔ Normal mode. Switches on with the same programme selected when the TV set was switched off.
- 10 ⇔ Hotel mode. Switches on with the same programme selected when the TV set was switched off.
- 11 ⇔ Hotel mode. Always switches on in programme 1
- 09 ⇔ Normal mode. Always switches on in AV mode

7.-ACTIVATION OF THE INITIAL AUTOMATIC CHANNEL-SEARCH.

In order to reset the initial automatic channel-search function, enter the tuning menu by keeping pushed the frontal **SET** key for a few seconds. Afterwards select the AUTO tuning mode by pushing several times the **SET** key. Then push the + or - key to start searching and switch-off the TV set before any station is found. When the TV set is switched on again it will remain in the same situation as when it was switched off.

8.- BLOCK DIAGRAM

9.- SERVICE ADJUSTMENT LOCATIONS

10.- ADJUSTMENT.

ADJUST ORDER	ADJUSTMENT	SIGNAL	CONDITIONS	TEST POINT	ADJUSTMENT	SPECIAL FEATURES	INSTRUMENT
1	B1 Power supply	Circular pattern	Picture TV: Normal ❶ Sound: Volume to minimum	B1 Cathode D-850	VR800	Adjust VR800 to obtain: $+118V \pm 0.5V$	DC Voltmeter Resolution $> 0.1V$.
2.A	IF Detector AFC	IF Signal 38,9MHz into IF pin TU250	Level of apply IF signal (38,9MHz) of 80 to 250 mVrms on 75Ω in synchronise.	AFC_OUT R111	L201	Adjust L201 to obtain a voltage of $3.5V \pm 0.2V$. ❷ The aerial should be disconnected so that it does not interfere with the applied IF signal	IF Generator. DC Voltmeter Resolution $> 0.1V$.
2.B	AGC	Test pattern Band III Channel 10	Level of aerial signal $60,0 \text{ dB}\mu V$. (1.0 mVrms .)	AGC 5 pin TU250	VR200	Adjust VR200 to obtain a voltage of $8V \pm 0.2V$.	Pattern generator DC Voltmeter Resolution $> 0.1V$.
3.A	Vertical size	Circular pattern	TV controls: Normal ❶	CRT screen	VR702	Adjust VR702 to make the picture cover the whole screen vertically and to get the battlements hidden	Visual adjust
3.B	Vertical linearity	Circular pattern	TV controls: Normal ❶	CRT screen	VR701	Adjust VR701 to achieve equal length for the upper and lower radius of the circle in vertical direction.	Visual adjust
3.C	Vertical centre	Circular pattern	TV controls: Normal ❶	CRT screen North Orientation	R712 R713	In case the picture is shifted up or down more than of 3mm. from screen centre, resistor R713 or R712 respectively should be cut. Readjust vertical size if necessary.	Visual adjust
4.A	Horizontal width	Circular pattern	TV controls: Normal ❶	CRT screen	L654	Adjust L654 so that the picture covers the whole screen horizontally and the battlements are hidden.	Visual adjust
4.B	Horizontal centre	Circular pattern	TV controls: Normal ❶	CRT screen	VR600	Adjust VR600 to centre the picture in horizontal direction. Readjust horizontal width if necessary.	Visual adjust
5.A	Cut-off preadjustment	AV Mode Without signal	Brightness controls: Adjust ❶ G2 to minimum.		VR503 VR504 VR505	Turn the potentiometers completely anticlockwise (seen from solder side)	
5.B	G2	AV Mode Without signal	Brightness controls: Adjust ❶ G2 to minimum. Service Line ❷	CRT screen	G2 Potentiometer	Set the G2 voltage for one colour to be just visible.	Visual adjust
5.C	Cut-off	AV Mode Without signal	Brightness controls: Adjust ❶ Service Line ❷	CRT screen	VR503 VR504 VR505	Adjust the potentiometers corresponding to those cathodes that are not conducting, in order to obtain a tenuous line without colour tone (White)	Visual adjust
5.D	Tone	Circular pattern	Colour to minimum and rest of controls in normal ❶	CRT screen	VR501 VR502	The potentiometers must be adjusted in order to obtain an acceptable colour tone. In case of doubt, they must be adjusted to the same value of the divider R503/R504	Visual adjust
6	Focus	Circular pattern	TV controls: Normal ❶	CRT screen	FOCUS	Adjust to obtain the best possible focusing in the centre of screen.	Visual adjust
7	Phase of OSD	Circular pattern	TV controls: Normal ❶ OPCODE menu. Described point 4	CRT screen	Sound + and -	Adjust to align the OSD vertical bar with the picture centre.	Visual adjust

10.1.- Notes about the adjustment:

In case of doing several adjustments follow the adjustment order in this table, for example, the adjusts N°2 (detector AFC and CAG) prevails over the N°6 (FOCUS), adjustment N°5B (G2) prevails over the N°5C (Cut-off).

❶ Factory picture control normal has the following OSD positions:

- Brightness: 32 (Push key "+" 32 times starting at minimum position.)
- Contrast: 57
- Colour: 26

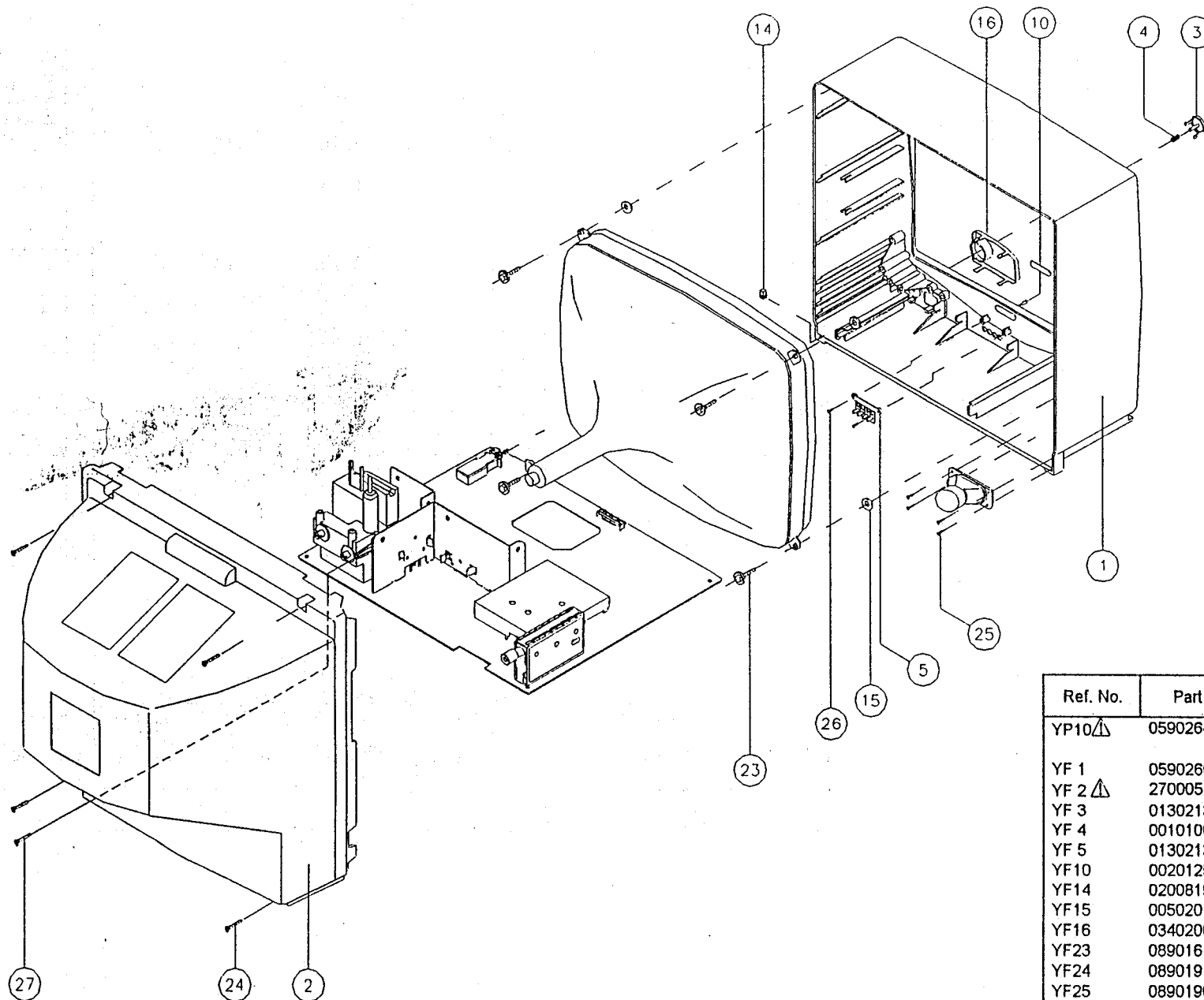
❷ The service line is obtained by connecting a resistor of 100Ω from the test point (R718-C713) to ground. If it is shorted to ground directly, the TV set might pass to Stand-by (due to actuation of the deflection circuit protection).

❸ There can be found 2 positions of the L201 core for which the voltage in R211 is of $3.5V$, but the only correct position is that in which that the voltage goes up as the core is introduced in the body of de L201, and the picture is acceptable.

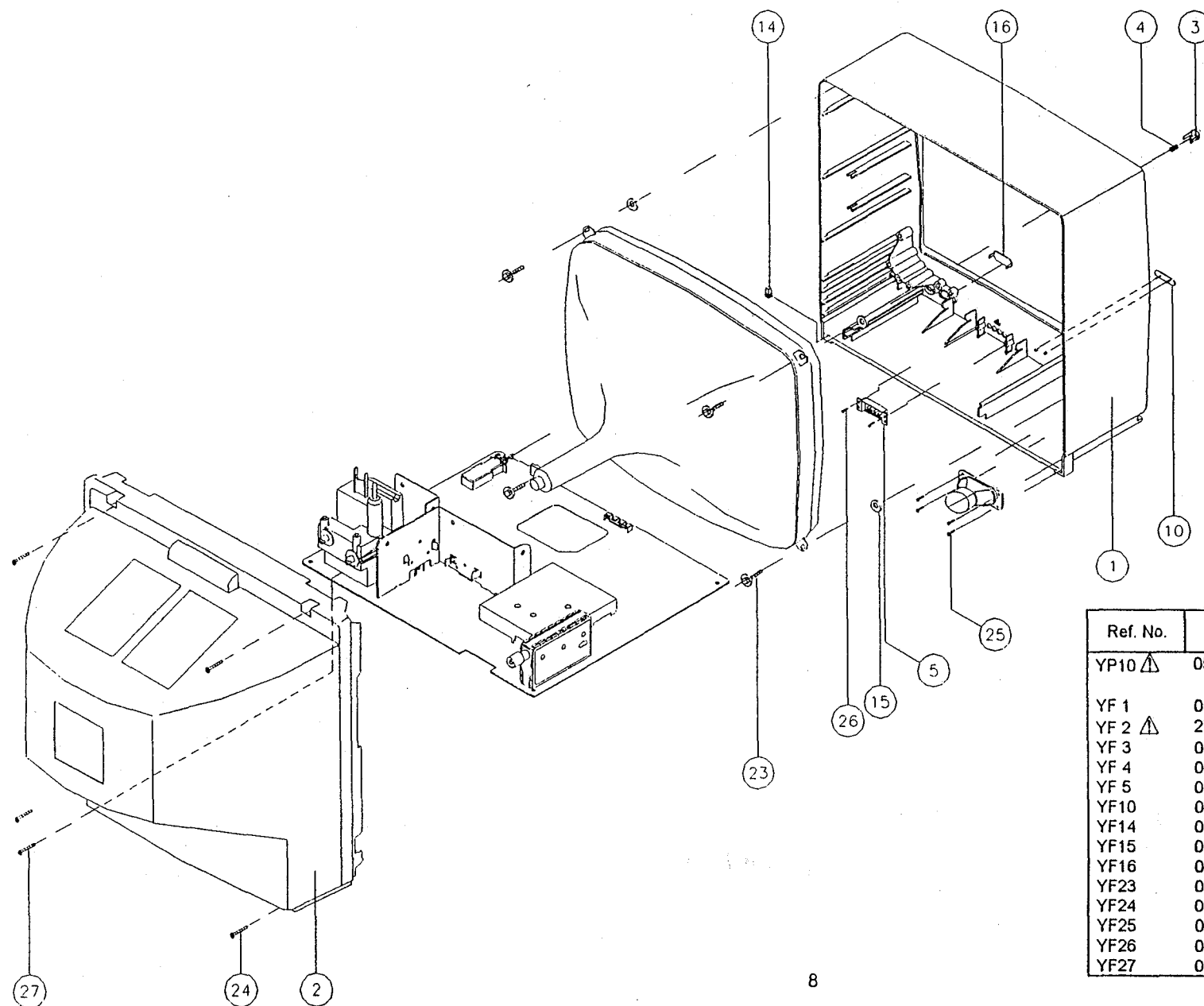
❹ Adjust to brightness. Position 34 (Push key "+" 34 times starting at minimum position.)

11.- C2161TX-P CABINET PARTS LIST

Service Manual C2161TX-P

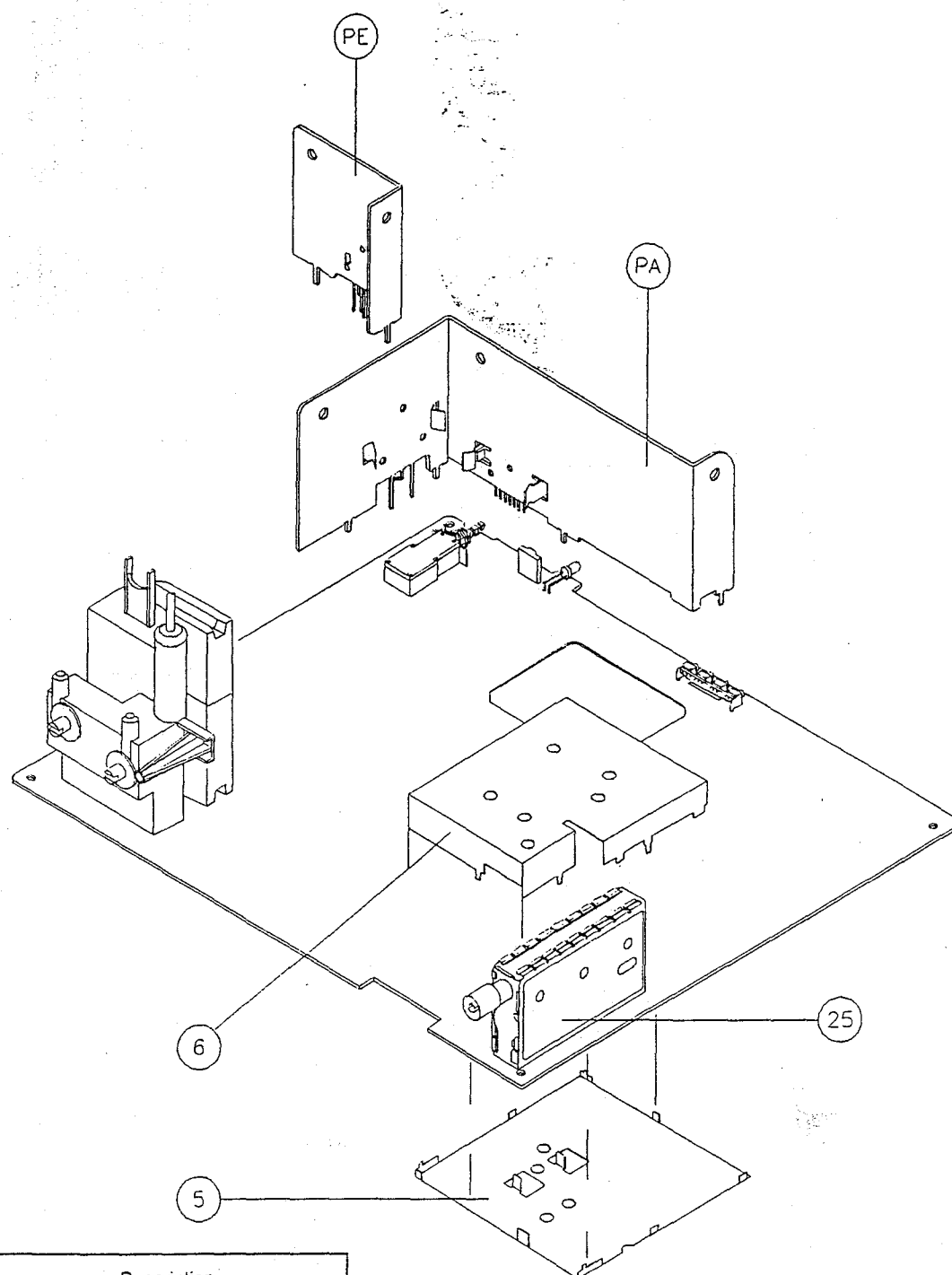


Ref. No.	Part No.	Description
YP10	0590264107	Back Cover C2161TX
YF 1	0590266003	Cabinet Front 21" E7JP/POL
YF 2	2700051705	Back Cover Assy 21" C2161TX P/POL
YF 3	0130213804	Power Button E7JP
YF 4	0010106607	Key spring
YF 5	0130213903	Push Key Assy E7JP
YF10	0020125209	SANYO Badge 46,2X13,5 L46
YF14	0200819910	AC Cord Holder
YF15	0050201821	Washer
YF16	0340206812	Dec Board 21" E7JP/POL.
YF23	0890161318	Screw Hi-Lo 5,8x27 W/Washer
YF24	0890191604	Screw 4x20
YF25	0890190903	Screw 4x13
YF26	0890092505	Screw AR. 2,9 x 9,5
YF27	0890191307	Screw 4x15



12.- C2170TX-P CABINET PARTS LIST

Ref. No.	Part No.	Description
YP10	0590264107	Back Cover
YF 1	0590266102	Cabinet Front 21" E7JS/POL
YF 2	2700051705	Back Cover Assy 21"
YF 3	0130212509	Power Button E7JS
YF 4	0010106607	Key spring
YF 5	0130212205	Push Key
YF10	0020120218	SANYO Badge
YF14	0200819910	AC Cord Holder
YF15	0050201821	Washer
YF16	0340207208	Dec Board 21" E7JS/POL.
YF23	0890161318	Screw Hi-Lo 5,8x27 W/Washer
YF24	0890191604	Screw 4x20
YF25	0890190903	Screw 4x13
YF26	0890092505	Screw AR. 2,9 x 9,5
YF27	0890191307	Screw 4x15

13.- CHASSIS ELECTRICAL PARTS LIST



Ref. No.	Part No.	Description
YG 5 *	0080112113	Copper Side Shield IF
YG 6 *	0080112022	Component Side Shield IF
Assy PA		
Q650	0360306708	S 2055 N
IC701	0360708101	LA 7832
YR10	0200224517	Heatsink Z Deflection
YR10A	0640705117	Eyelet 2,5-3
YR11	0010106300	Spring CLIP 56379
YR12	0970200804	Silicon Grease YG6260
Assy PE		
Q800	0360310809	MOS 2SK 2750 600V/3,5A
YR50	0200224129	Heatsink L 54,6X16
YR50A	0640705117	Eyelet 2,5-3
YR51	0010110401	Spring CLIP 56363
YR56	0970200804	Silicon Grease YG6260

Ref. No.	Part No.	Description
PCB SOCKET TRC		
CONNECTORS		
CON FG	0330144106	Ribbon Wire Holder 3 P.
CON FI	0330144304	Ribbon Wire Holder 5 P.
CON.FG	0160065223	Polarized Band, Gray 3P. 400+6+6
CON.FI	0160231205	Polarized Band Gray 5P 550+6+6
CON.FK	0640202610	Earth Wire 270 mm.
CAPACITORS		
C501	0240131516	Ceramic 470 pF. 2% 100V.
C502	0240131516	Ceramic 470 pF. 2% 100V.
C503	0240131516	Ceramic 470 pF. 2% 100V.
C504	0240590901	Ceramic 2200pF +80-20% 2KV.
C505	0250283868	Electrolytic 4,7 µF. 250V.
C540	0250461290	Electrolytic 100 µF. 16V
DIODES		
D541	0360130801	1N 4148
J-035	0470040007	Jumper Lead 0,6 mm.
J-501	0470040007	Jumper Lead 0,6 mm.
PCB04 	0750150328	Socket PCB 21" EC-4A
TRANSISTORS		
Q501	0360331029	JC 558 B
Q502	0360162408	BF 869
Q503	0360162408	BF 869
Q504	0360162408	BF 869
Q540	0360331029	JC 558 B
RESISTORS		
R501	0790733703	Carbon 360 Ω 5% 1/4W.
R502	0790146401	Carbon 3,9 KΩ 5% 1/6W.
R503	0790135909	Carbon 560 Ω 5% 1/6W.
R504	0790135701	Carbon 470 Ω 5% 1/6W.
R505	0790147102	Carbon 4,7 KΩ 5% 1/4W.
R506	0790131908	Carbon 220 Ω 5% 1/6W.
R507	0790577175	Metal Oxide 12 KΩ 5% 2W.
R508	0790131908	Carbon 220 Ω 5% 1/6W.
R509	0790577175	Metal Oxide 12 KΩ 5% 2W.
R510	0790131908	Carbon 220 Ω 5% 1/6W.
R511	0790577175	Metal Oxide 12 KΩ 5% 2W.
R512	0790123400	Carbon 47 Ω 5% 1/6W.
R513	0790123400	Carbon 47 Ω 5% 1/6W.
R514	0790123400	Carbon 47 Ω 5% 1/6W.
R515	0790036917	Carbon 1,5 KΩ 5% 12W.
R516	0790147102	Carbon 4,7 KΩ 5% 1/4W.
R517	0790036917	Carbon 1,5 KΩ 5% 12W.
R518	0790147102	Carbon 4,7 KΩ 5% 1/4W.
R519	0790036917	Carbon 1,5 KΩ 5% 12W.
R520	0790147102	Carbon 4,7 KΩ 5% 1/4W.
R521	0790134001	Carbon 390 Ω 5% 16W
R522	0790733901	Carbon 360 Ω 5% 1/6W.
R523	0790036917	Carbon 1,5 KΩ 5% 12W.
R524	0790175707	Carbon 1 MΩ 5% 1/6W.
R527	0790733901	Carbon 360 Ω 5% 1/6W.
R528	0790134001	Carbon 390 Ω 5% 16W
R540	0790145106	Carbon 3,3 KΩ 5% 16W
R541	0790151500	Carbon 10 KΩ 5% 1/6W.
R543	0470040007	Jumper Lead 0,6 mm.
VARIABLE RESISTORS		
VR501	0770511152	VR 220 Ω
VR502	0770511152	VR 220 Ω
VR503	0770511459	VR 10 KΩ
VR504	0770511459	VR 10 KΩ
VR505	0770511459	VR 10 KΩ
SOCKET 	0330159906	CRT Socket

Ref. No.	Part No.	Description
MAIN PCB		
CF200	0090412701	Ceramic TRAP Filter 5,56,5 MHz
CF201	0090412800	Ceramic Filter 6,5 MHz.
CF202	0090412503	Ceramic Filter 5.5 MHz.
CONNECTORS		
CN FB	0330191701	2P. Socket
CN FC	0330115106	2P. Socket X RTM 168
CN FCA	0640850210	Eyelet 1,6-3
CN FE	0330115106	2P. Socket X RTM 168
CN FEA	0640850210	Eyelet 1,6-3
CN FF1	0330190000	2P. Connector
CN FF2	0330270109	2 P. Socket
CN FG	0330144106	Ribbon Wire Holder 3 P.
CN FI	0330144304	Ribbon Wire Holder 5 P.
CAPACITORS		
C100	0250320793	Electrolytic 10 µF. 16V.
C101	0240143214	Ceramic 10 nF. +80-20% 63V.
C102	0240143214	Ceramic 10 nF. +80-20% 63V.
C103	0250119062	Electrolytic 6,8 µF. 50V.
C104	0240123711	Ceramic 100 pF. 2% 100V.
C105	0240111716	Ceramic 10 pF. 2% 100V.
C106	0240119917	Ceramic 47 pF. 2% 100V.
C107	0270281124	Polyester 33 nF. 10% 100V.
C108	0270281124	Polyester 33 nF. 10% 100V.
C109	0270220726	Polyester 10 nF. 10% 250V.
C110	0240119917	Ceramic 47 pF. 2% 100V.
C111	0240551242	Ceramic 1000 pF. +80-20% 50V.
C112	0270400989	Polyester 330 nF. 10% 63V.
C114	0240123711	Ceramic 100 pF. 2% 100V.
C115	0250220456	Electrolytic 1 µF. 100V.
C116	0250220456	Electrolytic 1 µF. 100V.
C117	0250220456	Electrolytic 1 µF. 100V.
C118	0250220456	Electrolytic 1 µF. 100V.
C119	0250320793	Electrolytic 10 µF. 16V.
C120	0250220456	Electrolytic 1 µF. 100V.
C121	0250220456	Electrolytic 1 µF. 100V.
C126	0270381031	Polyester 220 nF. 10% 63V.
C138	0270341431	Polyester 100 nF. 10% 63V.
C170	0250280864	Electrolytic 4,7 µF. 25V.
C175	0250410891	Electrolytic 47 µF. 16V.
C181	0240115618	Ceramic 22 pF. 2% 100V.
C182	0240117218	Ceramic 33 pF. 2% 100V.
C183	0240110510	Ceramic 8,2 pF. +0,25 pF. 100V
C190	0240143214	Ceramic 10 nF. +80-20% 63V.
C191	0270381031	Polyester 220 nF. 10% 63V.
C193	0270341431	Polyester 100 nF. 10% 63V.
C200	0240111716	Ceramic 10 pF. 2% 100V.
C201	0250220456	Electrolytic 1 µF. 100V.
C202	0250320793	Electrolytic 10 µF. 16V.
C203	0240551242	Ceramic 1000 pF. +80-20% 50V.
C204	0250320793	Electrolytic 10 µF. 16V.
C206	0270341431	Polyester 100 nF. 10% 63V.
C207	0250320793	Electrolytic 10 µF. 16V.
C230	0240121715	Ceramic 68 pF. 2% 100V.
C231	0240121715	Ceramic 68 pF. 2% 100V.
C232	0240143214	Ceramic 10 nF. +80-20% 63V.
C233	0240143214	Ceramic 10 nF. +80-20% 63V.
C234	0240143214	Ceramic 10 nF. +80-20% 63V.
C250	0250461290	Electrolytic 100 µF. 16V
C256	0250360492	Electrolytic 22 µF. 16V.
C301	0240144410	Ceramic 22 nF. +80-20% 63V.
C302	0270341431	Polyester 100 nF. 10% 63V.
C303	0240131417	Ceramic 470 pF. 10% 100V.
C304	0250220456	Electrolytic 1 µF. 100V.
C305	0250410891	Electrolytic 47 µF. 16V.
C306	0250220456	Electrolytic 1 µF. 100V.
C307	0250240496	Electrolytic 2,2 µF. 63V.
C312	0240561100	Ceramic 1000 pF. +80-20% 63V.
C317	0250410891	Electrolytic 47 µF. 16V.
C318	0240142414	Ceramic 4700 pF. 10% 100V
C320	0250320793	Electrolytic 10 µF. 16V.
C323	0270341431	Polyester 100 nF. 10% 63V.
C324	0250570462	Electrolytic 1000 µF. 25V.
C325	0250530425	Electrolytic 470 µF. 16V. 8X14

Ref. No.	Part No.	Description
C327	0270381031	Polyester 220 nF. 10% 63V.
C400	0240144410	Ceramic 22 nF. +80-20% 63V.
C401	0250500667	Electrolytic 220 µF. 16V.
C402	0270341431	Polyester 100 nF. 10% 63V.
C403	0270341431	Polyester 100 nF. 10% 63V.
C404	0250240496	Electrolytic 2,2 µF. 63V.
C405	0240114611	Ceramic 18 pF. 2% 100V.
C407	0270180623	Polyester 4700 pF. 10% 250V.
C408	0270341431	Polyester 100 nF. 10% 63V.
C409	0240143214	Ceramic 10 nF. +80-20% 63V.
C410	0240143214	Ceramic 10 nF. +80-20% 63V.
C411	0240143214	Ceramic 10 nF. +80-20% 63V.
C412	0240141614	Ceramic 3900 pF. 10% 100V.
C413	0270341431	Polyester 100 nF. 10% 63V.
C414	0270341431	Polyester 100 nF. 10% 63V.
C415	0270341431	Polyester 100 nF. 10% 63V.
C416	0240551242	Ceramic 1000 pF. +80-20% 50V.
C417	0240143214	Ceramic 10 nF. +80-20% 63V.
C418	0240143214	Ceramic 10 nF. +80-20% 63V.
C419	0240143214	Ceramic 10 nF. +80-20% 63V.
C420	0270341431	Polyester 100 nF. 10% 63V.
C422	0250360492	Electrolytic 22 µF. 16V.
C424*	0240123711	Ceramic 100 pF. 2% 100V.
C425	0250530425	Electrolytic 470 µF. 16V.
C427*	0270341431	Polyester 100 nF. 10% 63V.
C430	0250320793	Electrolytic 10 µF. 16V.
C600	0250410891	Electrolytic 47 µF. 16V.
C601	0240142414	Ceramic 4700 pF. 10% 100V
C602	0250222841	Electrolytic 1 µF. 50V.
C603	0240139618	Ceramic 2200 pF. 10% 100V.
C604	0270341431	Polyester 100 nF. 10% 63V.
C607	0270370588	Polyester 180 nF. 10% 63V.
C651	0260217120	Polypropylene 9100 pF. 5% 1,5KV.
C651A	0640850210	Eyelet 1,6-3
C654	0270450232	Polyester 820 nF. 5% 250V.
C655	0240133355	Ceramic 680 pF. 10% 1KV.
C657	0270341431	Polyester 100 nF. 10% 63V.
C660	0270140122	Polyester 2200 pF. 10% 400V.
C661	0260400270	Polypropylene 330 nF. 5% 400V.
C661A	0640850210	Eyelet 1,6-3
C662	0250220456	Electrolytic 1 µF. 100V.
C664	0240133355	Ceramic 680 pF. 10% 1KV.
C665	0270341324	Polyester 100 nF. 10% 250V.
C668	0250240496	Electrolytic 2,2 µF. 63V.
C671	0250248267	Electrolytic 2,2 µF. 160V.
C672	0240132035	Ceramic. 470 pF. 10% 1KV.
C701	0250601564	Electrolytic 2200 µF. 25V.
C702	0250501368	Electrolytic 220 µF. 35V.
C703	0270341431	Polyester 100 nF. 10% 63V.
C704	0270100522	Polyester 1000 pF. 10% 400V.
C705	0270220726	Polyester 10 nF. 10% 250V.
C706	0250600913	Electrolytic 2200 µF. 16V.
C707	0250240496	Electrolytic 2,2 µF. 63V.
C710	0270381031	Polyester 220 nF. 10% 63V.
C711	0240119917	Ceramic 47 pF. 2% 100V.
C713	0270342603	Polycarbonate 100 nF. 5% 63V.
C714	0270220726	Polyester 10 nF. 10% 250V.
C804*△	0270401508	Polyester 330 nF. 20% 275V.AC
C805	0240134767	Ceramic 1000 pF. +-20% 1KV.
C806	0240134767	Ceramic 1000 pF. +-20% 1KV.
C807	0240134767	Ceramic 1000 pF. +-20% 1KV.
C808	0240134767	Ceramic 1000 pF. +-20% 1KV.
C809*△	0240136135	Ceramic 1000 pF. 20% 4KV
C810	0250464708	Electrolytic 100 µF. 400V.
C810A	0640705117	Eyelet 2,5-3
C811	0240134767	Ceramic 1000 pF. +-20% 1KV.
C812	0270100522	Polyester 1000 pF. 10% 400V.
C813	0240390914	Ceramic 47 pF. 5% 1KV.
C814	0270281231	Polyester 33 nF. 10% 400V.
C815	0250412897	Electrolytic 47 µF. 25V.
C816	0240131516	Ceramic 470 pF. 2% 100V.
C818	0240561100	Ceramic 1000 pF. +80-20% 63V.
C820	0240430306	Ceramic 100 pF. 2% 100V.
C821*△	0240136135	Ceramic 1000 pF. 20% 4KV
C822	0270341431	Polyester 100 nF. 10% 63V.
C850	0240430710	Ceramic 100 pF. 5% 1KV.
C851	0250132776	Electrolytic. 100 µF. 200V.

Ref. No.	Part No.	Description
C854	0250531969	Electrolytic 470 µF. 25V.
C856	0250531969	Electrolytic 470 µF. 25V.
C857	0250320793	Electrolytic 10 µF. 16V.
C858	0250320793	Electrolytic 10 µF. 16V.
C859	0250220464	Electrolytic 1 µF. 100V.
C900	0250320793	Electrolytic 10 µF. 16V.
C901	0240123711	Ceramic 100 pF. 2% 100V.
C902	0250320793	Electrolytic 10 µF. 16V.
C904	0250320793	Electrolytic 10 µF. 16V.
C906	0250320793	Electrolytic 10 µF. 16V.
C912*	0240131417	Ceramic 470 pF. 10% 100V.
C914*	0240131417	Ceramic 470 pF. 10% 100V.
C915*	0240131417	Ceramic 470 pF. 10% 100V.
C917	0240131417	Ceramic 470 pF. 10% 100V.
C918	0250320793	Electrolytic 10 µF. 16V.
C919	0250320793	Electrolytic 10 µF. 16V.
C922	0240143214	Ceramic 10 nF. +80-20% 63V.
C942	0250320793	Electrolytic 10 µF. 16V.
DIODES		
D100	0360126304	RED 3mm.
D101	0360130801	1N 4148
D102	0360130801	1N 4148
D103	0360130801	1N 4148
D120	0360130801	1N 4148
D200	0360020218	1N 4148
D201	0360020218	1N 4148
D251	0360135107	Zener BZX79C8V2
D252	0360135107	Zener BZX79C8V2
D253	0360135107	Zener BZX79C8V2
D302	0360130801	1N 4148
D400	0360103204	Zener BZX79C5V1
D600	0360130801	1N 4148
D601	0360103204	Zener BZX79C5V1
D653	0360377006	ERB44-04
D654	0360376909	ERB44-02
D655	0360130801	1N 4148
D656	0360135107	Zener BZX79C8V2
D657	0360130629	1N 4007 RL
D659	0360130801	1N 4148
D660	0360005409	Zener BZX79C24
D661	0360103204	Zener BZX79C5V1
D662	0360130801	1N 4148
D663	0360377006	ERB44-04
D664	0360107106	Zener BZX79C15
D670	0360130801	1N 4148
D701	0360130629	1N 4007 RL
D702	0360130801	1N 4148
D703	0360130801	1N 4148
D704	0470040007	Jumper Lead 0,6 mm.
D800	0360130629	1N 4007 RL
D801	0360130629	1N 4007 RL
D802	0360130629	1N 4007 RL
D803	0360130629	1N 4007 RL
D804	0360376800	EG01C
D805	0360376909	ERB44-02
D806	0360130801	1N 4148
D850	0360376404	ERB44-06
D851	0360376701	Schottky RK 19 V1
D852	0360376909	ERB44-02
D853	0360130819	1N 4148
D854	0360130819	1N 4148
D855	0360103204	Zener BZX79C5V1
D859	0360005508	Zener BZX79C9V1
D900	0360004709	Zener BZX79C12
D902	0360004709	Zener BZX79C12
D904	0360004709	Zener BZX79C12
D906	0360004709	Zener BZX79C12
D909	0360004709	Zener BZX79C12
D911	0360004709	Zener BZX79C12
FUSE		
F-300	0760100701	Fuse Terminal Taped
F800 △	0330161902	Fuse T 2 A.250V. TIME-LAG
INTEGRATED CIRCUIT		
IC100	0360471916	SDA 5251-A004

Ref. No.	Part No.	Description
IC125	0360478101	AT24C02-10PC
IC190	0360706014	HZT33-02 RE
IC300	0360491104	TDA 1904
IC400	0360513444	TDA 8361 N5
IC401	0360142202	U 3661 M
IC701	0360708101	LA 7832
IC800	0360467203	MC44603P
IC900	0360706600	LA 7016
IP125	0800105603	NVM DATA EC-4A 21"
COILS		
L100	0090319229	Peaking Coil 4,7 μ H. 10%
L101	0620005116	Pipe Core 3,5X4,5
L105	0090319864	Peaking Coil 6,8 μ H 5%
L200	0090315029	Peaking Coil 10 μ H. 10%
L201	0090502303	Coil 38,9 MH.CCOND.100pF
L202	0090315029	Peaking Coil 10 μ H. 10%
L210	0090304627	Peaking Coil 1 μ H. 10%
L250	0090315763	Peaking Coil 100 μ H 10%
L300	0620005116	Pipe Core 3,5X4,5
L303	0790528400	Fuse 2,2 Ω 5% 0,75W.
L304	0470040007	Jumper Lead 0,6 mm.
L400	0090319260	Peaking Coil 4,7 μ H. 10%
L402*	0620005504	Pipe Core 4330 030 38741 EMB.
L403*	0090319260	Peaking Coil 4,7 μ H. 10%
L404*	0090319260	Peaking Coil 4,7 μ H. 10%
L405*	0090319260	Peaking Coil 4,7 μ H. 10%
L601	0090315060	Peaking Coil 10 μ H. 10%
L652	0090206707	Linearity Coil LH11J105SH-T10
L652A	0640850210	Eyelet 1,6-3
L654	0090310806	Adjustable Width Coil 27/130 μ H.
L654A	0640850210	Eyelet 1,6-3
L801* Δ	0090412602	Mains Filter 2X18 MH. 250 VAC. 0,5A
L801A	0640850210	Eyelet 1,6-3
L802	0090304627	Peaking Coil 1 μ H. 10%
L803	0620005116	Pipe Core 3,5X4,5
L850	0620005116	Pipe Core 3,5X4,5
L851	0620005116	Pipe Core 3,5X4,5
L852	0620005116	Pipe Core 3,5X4,5
L901	0790036305	Carbon 2,2 K Ω 5% 1/4W.
L902*	0790036305	Carbon 2,2 K Ω 5% 1/4W.
L903*	0790036305	Carbon 2,2 K Ω 5% 1/4W.
L904*	0090315029	Peaking Coil 10 μ H. 10%
PCB11* Δ	0750150229	MAIN PCB 21" EC-4A
PTC800 Δ	0810101212	DUAL PTC 18 Ω +-25%
TRANSISTORS		
Q101	0360330021	JC 548 B
Q105	0360189112	PH2369
Q106	0360330021	JC 548 B
Q107	0360330021	JC 548 B
Q111	0360330021	JC 548 B
Q120	0360330021	JC 548 B
Q121	0360330021	JC 548 B
Q200	0360330021	JC 548 B
Q201	0360331029	JC 558 B
Q251	0360331029	JC 558 B
Q252	0360331029	JC 558 B
Q253	0360331029	JC 558 B
Q300	0360330021	JC 548 B
Q301	0360330021	JC 548 B
Q302	0360331029	JC 558 B
Q400	0360331029	JC 558 B
Q401	0360330021	JC 548 B
Q430	0360330021	JC 548 B
Q431	0360331029	JC 558 B
Q600	0360169916	BC 879 Darlington
Q650	0360330021	JC 548 B
Q650A	0640850210	Eyelet 1,6-3
Q703	0360331029	JC 558 B
Q800	0360330021	MOS 2SK2750 600V3.5A
Q850	0360330021	JC 548 B
Q851	0360306104	2S8 764 E

Ref. No.	Part No.	Description
Q852	0360330021	JC 548 B
Q853	0360331029	JC 558 B
Q854	0360331029	JC 558 B
Q855	0360306203	2SD 863 E
Q856	0360331029	JC 558 B
Q857	0360331029	JC 558 B
Q859	0360330021	JC 548 B
Q860	0360330021	JC 548 B
Q866	0360330021	JC 548 B
Q900	0360330021	JC 548 B
Q901	0360330021	JC 548 B
R1100	0600122204	Infrared Receiver SBX8030-F
RESISTORS		
R100	0790133607	Carbon 330 Ω 5% 1/6W.
R101	0790352520	Metal Film 4,02 K Ω 1% 0,4W.
R102	0790126700	Carbon 100 Ω 5% 1/6W.
R103	0790126700	Carbon 100 Ω 5% 1/6W.
R104	0790359525	Metal Film 11,3 K Ω 1% 0,4W.
R105	0790146401	Carbon 3,9 K Ω 5% 1/6W.
R106	0790143606	Carbon 2,2 K Ω 5% 1/6W.
R107	0790153605	Carbon 15 K Ω 5% 16W
R108	0790578306	Metal Film 15 K Ω 1% 0,4W.
R109	0790588529	Metal Film 100 K Ω 1% 0,4W.
R111	0790135701	Carbon 470 Ω 5% 1/6W.
R112	0790155600	Carbon 22 K Ω 5% 1/6W.
R113	0790126700	Carbon 100 Ω 5% 1/6W.
R114	0470040007	Jumper Lead 0,6 mm.
R115	0790151500	Carbon 10 K Ω 5% 1/6W.
R116	0790150601	Carbon 8,2 K Ω 5% 1/6W.
R117	0790149405	Carbon 6,8 K Ω 5% 1/6W.
R118	0790149405	Carbon 6,8 K Ω 5% 1/6W.
R119	0790126700	Carbon 100 Ω 5% 1/6W.
R120	0790138804	Carbon 1 K Ω 5% 1/6W.
R122	0790126700	Carbon 100 Ω 5% 1/6W.
R124	0790356521	Metal Film 6,49 K Ω 1% 0,4W.
R125	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R126	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R127	0790151500	Carbon 10 K Ω 5% 1/6W.
R128	0790162309	Carbon 82 K Ω 5% 1/6W.
R129	0790174007	Carbon 750 K Ω 5% 1/6W.
R130	0790143606	Carbon 2,2 K Ω 5% 1/6W.
R131	0790756308	Carbon 27 K Ω 5% 1/6W.
R132	0790165302	Carbon 150 K Ω 5% 1/6W.
R133	0790155600	Carbon 22 K Ω 5% 1/6W.
R135	0790160501	Carbon 56 K Ω 5% 1/6W.
R136	0790755003	Carbon 20 K Ω 5% 1/6W.
R137	0790758007	Carbon 36 K Ω 5% 1/6W.
R139	0790769103	Carbon 330 K Ω 5% 1/6W.
R140	0790180509	Carbon 2,2 M Ω 5% 1/4W.
R141	0790178107	Carbon 1,5 M Ω 5% 1/4W.
R142	0790155600	Carbon 22 K Ω 5% 1/6W.
R143	0790159503	Carbon 47 K Ω 5% 16W
R144	0790157408	Carbon 33 K Ω 5% 1/6W.
R145	0790126700	Carbon 100 Ω 5% 1/6W.
R146	0790364129	Metal Film 22,1 K Ω 1% 0,4W.
R147	0790750004	Carbon 7,5 K Ω 5% 1/6W.
R148	0790143606	Carbon 2,2 K Ω 5% 1/6W.
R149	0790151708	Carbon 12 K Ω 5% 1/6W.
R150	0790143606	Carbon 2,2 K Ω 5% 1/6W.
R151	0790148605	Carbon 5,6 K Ω 5% 1/6W.
R152	0790148605	Carbon 5,6 K Ω 5% 1/6W.
R153	0790148605	Carbon 5,6 K Ω 5% 1/6W.
R154	0790153605	Carbon 15 K Ω 5% 16W
R155	0790138804	Carbon 1 K Ω 5% 1/6W.
R156	0790142509	Carbon 1,8 K Ω 5% 1/6W.
R157	0790151500	Carbon 10 K Ω 5% 1/6W.
R158	0790155600	Carbon 22 K Ω 5% 1/6W.
R159	0790163000	Carbon 100 K Ω 5% 16W
R160	0790756308	Carbon 27 K Ω 5% 1/6W.
R161	0790123400	Carbon 47 Ω 5% 1/6W.
R162	0790123400	Carbon 47 Ω 5% 1/6W.
R163	0790123400	Carbon 47 Ω 5% 1/6W.
R164	0790144505	Carbon 2,7 K Ω 5% 1/6W.
R166	0790151500	Carbon 10 K Ω 5% 1/6W.

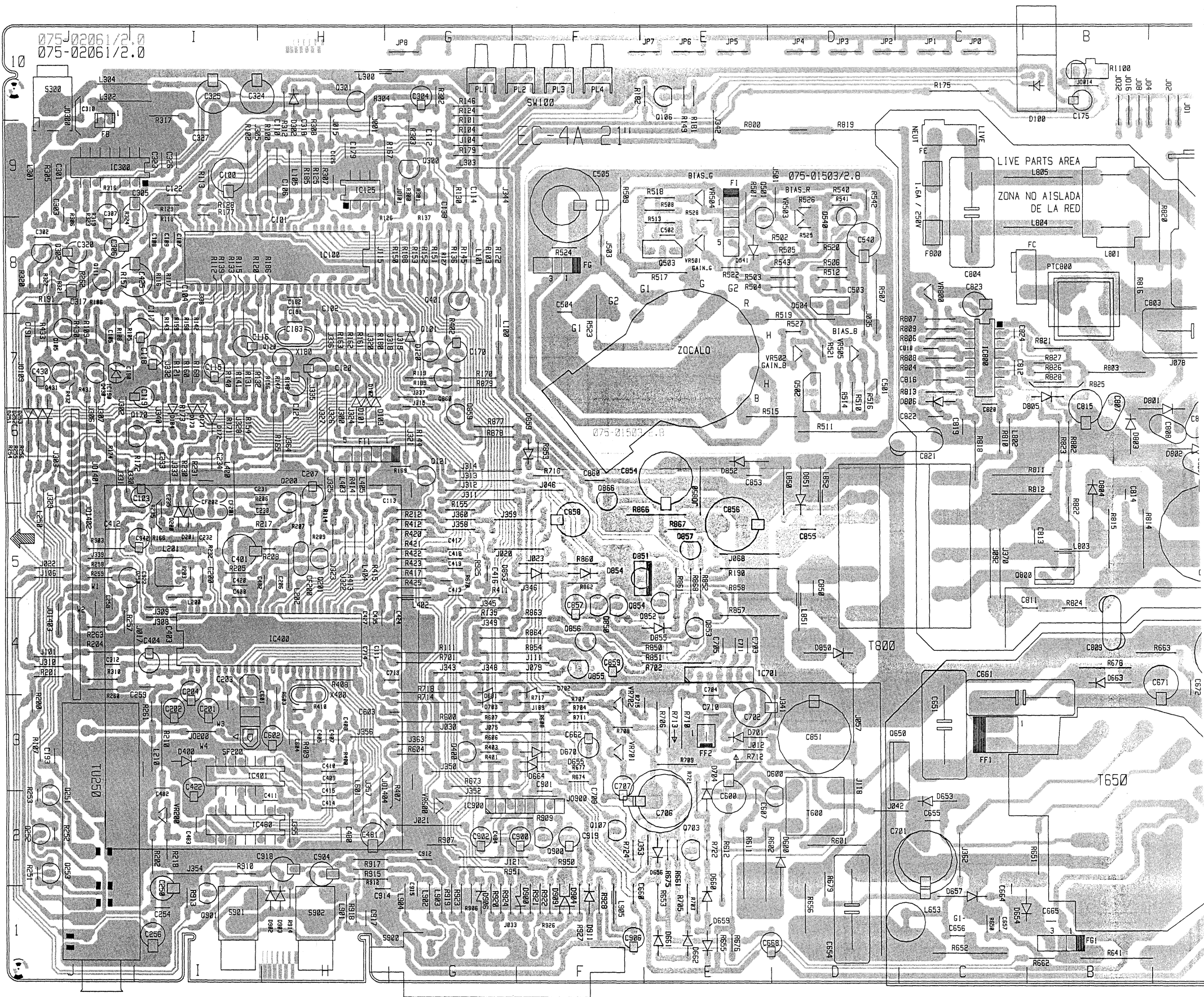
Ref. No.	Part No.	Description
R167	0790354229	Metal Film 5,11 K Ω 1% 0,4W.
R168	0790159503	Carbon 47 K Ω 5% 16W.
R169	0790151500	Carbon 10 K Ω 5% 1/6W.
R170	0790151500	Carbon 10 K Ω 5% 1/6W.
R175	0790123608	Carbon 47 Ω 5% 12W.
R177	0790151500	Carbon 10 K Ω 5% 1/6W.
R179	0790138804	Carbon 1 K Ω 5% 1/6W.
R180	0790138804	Carbon 1 K Ω 5% 1/6W.
R181	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R182	0790159503	Carbon 47 K Ω 5% 16W.
R185	0790138804	Carbon 1 K Ω 5% 1/6W.
R186	0470040007	Jumper Lead 0,6 mm.
R188	0790151500	Carbon 10 K Ω 5% 1/6W.
R189	0790170302	Carbon 390 K Ω 5% 1/6W.
R190	0790578140	Metal Oxide 15 K Ω 5% 2W.
R191	0790153605	Carbon 15 K Ω 5% 16W.
R200	0790149405	Carbon 6,8 K Ω 5% 1/6W.
R201	0790155600	Carbon 22 K Ω 5% 1/6W.
R202	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R203	0790149405	Carbon 6,8 K Ω 5% 1/6W.
R204	0790137707	Carbon 680 Ω 5% 16W.
R205	0790138804	Carbon 1 K Ω 5% 1/6W.
R206	0790135701	Carbon 470 Ω 5% 1/6W.
R207	0790131908	Carbon 220 Ω 5% 1/6W.
R208	0790141600	Carbon 1,5 K Ω 5% 1/6W.
R209	0790135701	Carbon 470 Ω 5% 1/6W.
R210	0790135909	Carbon 560 Ω 5% 1/6W.
R212	0790135701	Carbon 470 Ω 5% 1/6W.
R217	0790132104	Carbon 270 Ω 5% 1/4W.
R218	0790135701	Carbon 470 Ω 5% 1/6W.
R230	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R231	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R232	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R235	0790137707	Carbon 680 Ω 5% 16W.
R251	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R252	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R253	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R254	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R255	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R256	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R262	0790148605	Carbon 5,6 K Ω 5% 1/6W.
R300	0790159503	Carbon 47 K Ω 5% 16W.
R301	0790159503	Carbon 47 K Ω 5% 16W.
R302	0790168504	Carbon 270 K Ω 5% 1/6W.
R303	0790160501	Carbon 56 K Ω 5% 1/6W.
R304	0790157408	Carbon 33 K Ω 5% 1/6W.
R306	0790155600	Carbon 22 K Ω 5% 1/6W.
R307	0790151500	Carbon 10 K Ω 5% 1/6W.
R308	0790155600	Carbon 22 K Ω 5% 1/6W.
R310	0470040007	Jumper Lead 0,6 mm.
R312	0790145106	Carbon 3,3 K Ω 5% 16W.
R316	0790148605	Carbon 5,6 K Ω 5% 1/6W.
R317	0790111207	Carbon 4,7 Ω 5% 1/4W.
R319	0790130504	Carbon 180 Ω 5% 16W.
R320	0790151500	Carbon 10 K Ω 5% 1/6W.
R321	0790151500	Carbon 10 K Ω 5% 1/6W.
R322	0790163000	Carbon 100 K Ω 5% 16W.
R323	0790138804	Carbon 1 K Ω 5% 1/6W.
R324	0790129803	Carbon 150 Ω 5% 1/6W.
R400	0790163000	Carbon 100 K Ω 5% 16W.
R401	0790151500	Carbon 10 K Ω 5% 1/6W.
R402	0790151500	Carbon 10 K Ω 5% 1/6W.
R403	0790138804	Carbon 1 K Ω 5% 1/6W.
R407	0790149405	Carbon 6,8 K Ω 5% 1/6W.
R408	0790153605	Carbon 15 K Ω 5% 16W.
R409	0790131601	Carbon 220 Ω 5% 12W.
R410	0790150601	Carbon 8,2 K Ω 5% 1/6W.
R411	0470040007	Jumper Lead 0,6 mm.
R412	0470040007	Jumper Lead 0,6 mm.
R413*	0790126700	Carbon 100 Ω 5% 1/6W.
R414*	0790126700	Carbon 100 Ω 5% 1/6W.
R415*	0790126700	Carbon 100 Ω 5% 1/6W.
R417	0470040007	Jumper Lead 0,6 mm.
R420	0470040007	Jumper Lead 0,6 mm.
R421	0470040007	Jumper Lead 0,6 mm.

Ref. No.	Part No.	Description
R422	0790026207	Carbon 560 Ω 5% 1/4W.
R423	0790026207	Carbon 560 Ω 5% 1/4W.
R425	0470040007	Jumper Lead 0,6 mm.
R430	0790138804	Carbon 1 K Ω 5% 1/6W.
R431	0790142509	Carbon 1,8 K Ω 5% 1/6W.
R432	0790135909	Carbon 560 Ω 5% 1/6W.
R433	0790137202	Carbon 680 Ω 5% 1/4W.
R600	0790132104	Carbon 270 Ω 5% 1/4W.
R601	0790523401	Metal Film 1 Ω 1% 0,6W.
R602	0790552418	Metal Film 220 Ω 5% 2W.
R603	0790151500	Carbon 10 K Ω 5% 1/6W.
R604	0790174106	Carbon 820 K Ω 5% 1/4W.
R606	0790756308	Carbon 27 K Ω 5% 1/6W.
R607	0790146401	Carbon 3,9 K Ω 5% 1/6W.
R608	0790135909	Carbon 560 Ω 5% 1/6W.
R611	0790539001	Metal Film 18 Ω 5% 1W.
R612	0790538813	Metal Film 15 Ω 5% 1W.
R641	0090206608	Coil 25 μ H. 10% 1,5 A.
R650	0790161608	Carbon 68 K Ω 5% 1/6W.
R651 Δ	0790531701	Fuse 4,7 Ω 5% 0,3W.
R653	0790151500	Carbon 10 K Ω 5% 1/6W.
R655	0790155600	Carbon 22 K Ω 5% 1/6W.
R656	0780163309	Wirewound 8,2 Ω 10% 5W.
R661	0790138804	Carbon 1 K Ω 5% 1/6W.
R662	0790027502	Carbon 1 K Ω 5% 1/4W.
R663	0790558316	Metal Film 820 Ω 1% 0,61W.
R670	0790151500	Carbon 10 K Ω 5% 1/6W.
R673	0790138804	Carbon 1 K Ω 5% 1/6W.
R674	0790159503	Carbon 47 K Ω 5% 16W.
R675	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R676	0790151708	Carbon 12 K Ω 5% 1/6W.
R677	0790159503	Carbon 47 K Ω 5% 16W.
R678	0790576706	Metal Film 10 K Ω 5% 2W.
R679	0470040007	Jumper Lead 0,6 mm.
R701	0470040007	Jumper Lead 0,6 mm.
R702	0790142509	Carbon 1,8 K Ω 5% 1/6W.
R703	0790151500	Carbon 10 K Ω 5% 1/6W.
R704	0790756308	Carbon 27 K Ω 5% 1/6W.
R705	0790145106	Carbon 3,3 K Ω 5% 16W.
R706	0790526701	Metal Film 1,5 Ω 1% 0,6W.
R707	0790151500	Carbon 10 K Ω 5% 1/6W.
R708	0790151500	Carbon 10 K Ω 5% 1/6W.
R709	0790032601	Carbon 1,8 K Ω 5% 1/4W.
R710	0790551113	Power Metal Film 180 Ω 5% 1W.
R712	0790036800	Carbon 1,5 K Ω 5% 1/4W.
R713	0790036305	Carbon 2,2 K Ω 5% 1/4W.
R714	0470040007	Jumper Lead 0,6 mm.
R715	0790123400	Carbon 47 Ω 5% 1/6W.
R716	0790163000	Carbon 100 K Ω 5% 16W.
R717	0790182505	Carbon 3,3 M Ω 5% 1/4W.
R718	0790604607	Metal Film 3,3 M Ω 1% 0,6W.
R722	0790151500	Carbon 10 K Ω 5% 1/6W.
R724	0790148605	Carbon 5,6 K Ω 5% 1/6W.
R800 Δ	0790185524	Solid 5,6 M Ω 10% 12W.
R801	0780147815	Wirewound 3,9 Ω 10% 6W.
R802	0790125702	Carbon 75 Ω 5% 1/4W.
R803	0790588313	Metal Oxide 100 K Ω 5% 2W.
R804	0790146401	Carbon 3,9 K Ω 5% 1/6W.
R806	0790750004	Carbon 7,5 K Ω 5% 1/6W.
R807	0790151500	Carbon 10 K Ω 5% 1/6W.
R808	0790175707	Carbon 1 M Ω 5% 1/6W.
R809	0790160907	Carbon 62 K Ω 5% 1/6W.
R810	0790756308	Carbon 27 K Ω 5% 1/6W.
R811	0790523344	Metal Film 1 Ω 5% 2W.
R812	0790523344	Metal Film 1 Ω 5% 2W.
R813	0790158307	Carbon 39 K Ω 5% 1/6W.
R814	0790583603	Metal Film 62 K Ω 5% 2W.
R816	0790184113	Carbon 4,7 M Ω 5% 12W.
R818	0790123103	Carbon 47 Ω 5% 1/4W.
R819 Δ	0790185524	Solid 5,6 M Ω 10% 12W.
R820	0790167217	Carbon 220 K Ω 5% 12W.
R821	0790135206	Carbon 470 Ω 5% 1/4W.
R822	0790147607	Carbon 4,7 K Ω 5% 1/6W.
R823	0790027502	Carbon 1 K Ω 5% 1/4W.
R824 Δ	0790513014	Fuse 0,33 Ω 5% 0,5W.

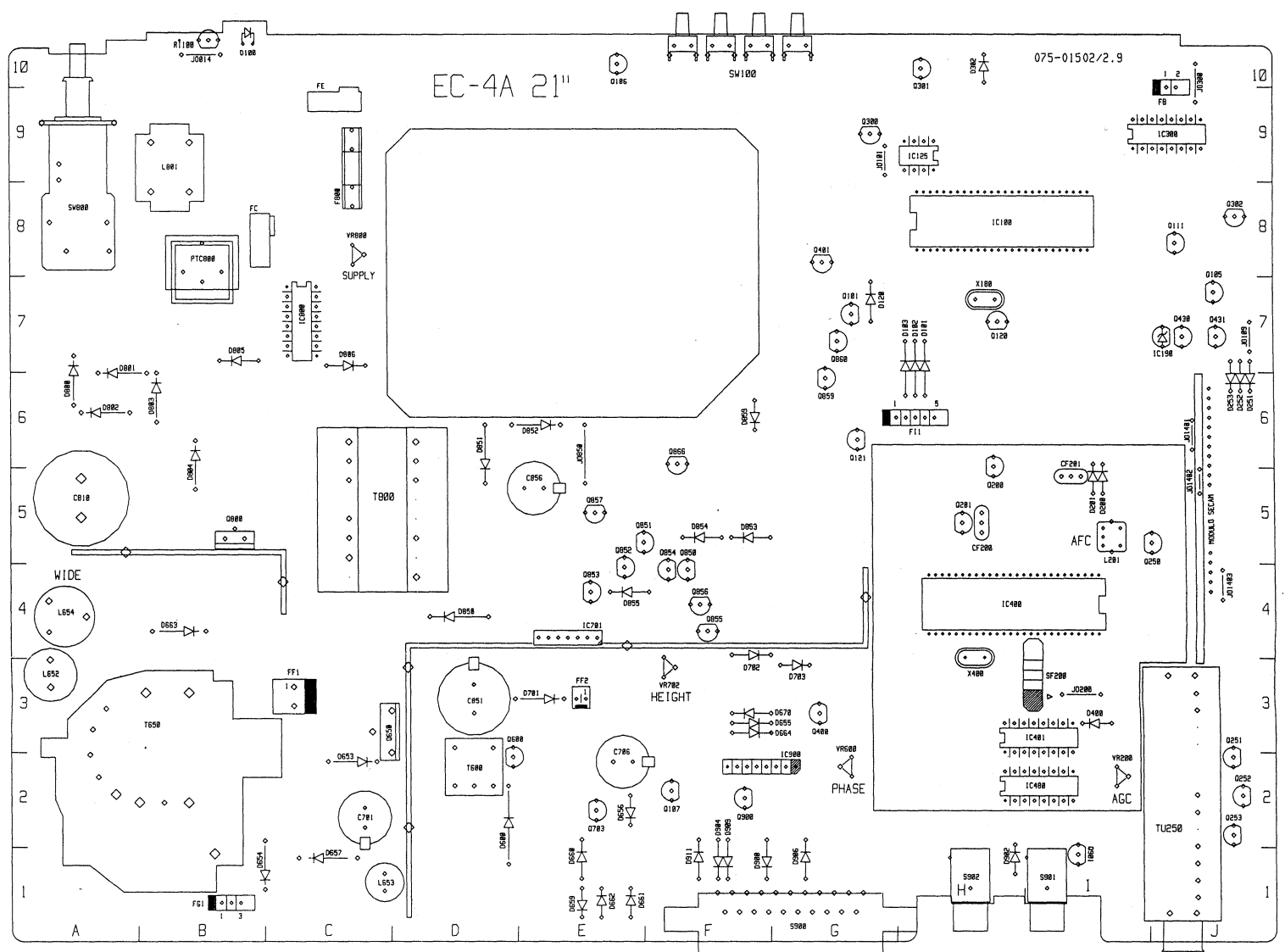
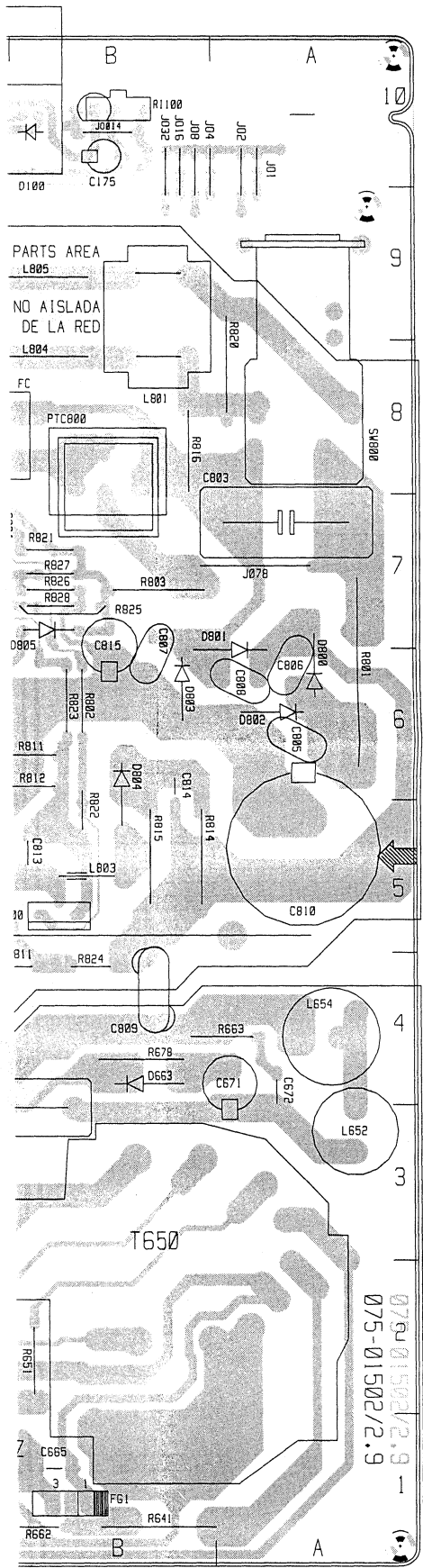
Ref. No.	Part No.	Description
R850	0790565923	Metal Film 2,43 K Ω 1% 0,4 W.
R851	0790346522	Metal Film 1,40 K Ω 1% 0,4W.
R852	0790126700	Carbon 100 Ω 5% 1/6W.
R853	0790143606	Carbon 2,2 K Ω 5% 1/6W.
R854	0790541312	Metal Oxide 27 Ω 5% 2W.
R857	0790552418	Metal Film 220 Ω 5% 2W.
R858	0790164107	Carbon 120 K Ω 5% 1/4W.
R860	0790151500	Carbon 10 K Ω 5% 1/6W.
R861	0790036800	Carbon 1,5 K Ω 5% 1/4W.
R862	0790151500	Carbon 10 K Ω 5% 1/6W.
R863	0790349328	Metal Film 1,91 K Ω 1% 0,4W
R864	0790135305	Carbon 470 Ω 5% 12W.
R866	0790330518	Metal Film 100 Ω 5% 2W.
R867	0790144505	Carbon 2,7 K Ω 5% 1/6W.
R868	0790151500	Carbon 10 K Ω 5% 1/6W.
R877	0790027502	Carbon 1 K Ω 5% 1/4W.
R878	0790151500	Carbon 10 K Ω 5% 1/6W.
R879	0790155600	Carbon 22 K Ω 5% 1/6W.
R903	0470040007	Jumper Lead 0,6 mm.
R906	0790158109	Carbon 39 K Ω 5% 1/4W.
R907	0790756308	Carbon 27 K Ω 5% 1/6W.
R909 Δ	0790540900	Fuse 27 Ω 5% 0,33W.
R910	0790157408	Carbon 33 K Ω 5% 1/6W.
R912	0790133102	Carbon 330 Ω 5% 1/4W.
R913	0790138804	Carbon 1 K Ω 5% 1/6W.
R914	0790151708	Carbon 12 K Ω 5% 1/6W.
R915	0790151500	Carbon 10 K Ω 5% 1/6W.
R917	0790151500	Carbon 10 K Ω 5% 1/6W.
R918	0790151500	Carbon 10 K Ω 5% 1/6W.
R919	0790125702	Carbon 75 Ω 5% 1/4W.
R920	0790125702	Carbon 75 Ω 5% 1/4W.
R921	0790125702	Carbon 75 Ω 5% 1/4W.
R922	0790125702	Carbon 75 Ω 5% 1/4W.
R923	0790026207	Carbon 560 Ω 5% 1/4W.
R924	0790026207	Carbon 560 Ω 5% 1/4W.
R925	0790026207	Carbon 560 Ω 5% 1/4W.
R926	0790137202	Carbon 680 Ω 5% 1/4W.
R927	0790125702	Carbon 75 Ω 5% 1/4W.
R928	0790125702	Carbon 75 Ω 5% 1/4W.
R950	0790131908	Carbon 220 Ω 5% 1/6W.
R951	0790131908	Carbon 220 Ω 5% 1/6W.
SF200*	0090403510	SAW Filter OFW K2950M
SW100	0130212327	4 Key Assy L=3,85 MM
SW800 Δ	0140203209	Power Switch
S900	0330161308	Scart Connector 21 PIN BLACK
S901	0330133109	VIDEO RCA Connector EK105Y
S902	0330133208	AUDIO RCA Connector EK105W
TUNER		
TU250*	0850101502	Tuner UV 915EIEC
TRANSFORMERS		
T600	0940105307	Driver Transformer
T650 Δ	0940108202	FBT 21" EC-4A HFT867M
T650A	0640705117	Eyelet 2,5-3
T650CF	0330160508	FOCUS Wire FBT SANYO
T650CG	0330160607	G2 Wire FBT SANYO
T800 Δ	0930106406	Power Trans. EC-4A TXT 9476-01
T800A	0640850210	Eyelet 1,6-3
VARIABLE RESISTORS		
VR200	0770511251	VR 1 K Ω
VR600	0770511459	VR 10 K Ω
VR701	0770511350	VR 2,2 K Ω
VR702	0770511053	VR 100 Ω
VR800	0770511350	VR 2,2 K Ω
X180	0030121500	Quartz Crystal 18,000 MHz
X400	0090121104	Quartz Crystal, 4.4336190 MHz.

Ref. No.	Part No.	Description
ELECTRICAL ASSY		
CN.FB	0330270224	2P Connector Wires 370+9 mm.
CN.FE* Δ	0330208208	Power Cord Assy 17-212 L=2500 MM
CN.FF1	0330246901	2 WAY Connector CASE WLEAD
CN.FF2	0330246802	2 WAY Connector CASE WLEAD
EM10	0600122311	Remote Control EC-4 TXT SANYO
L810 Δ	0090256306	Degaussing Coil 21"
SC001	0170200406	Shield Mesh 2 mm.
SC1000	0330100009	Connector
SPK 1	0030115208	Speaker 8 Ω 5W. 50X90
TRC Δ	1000107902	A51EFS83X191
All information in this manual is correct at the start of production. Sanyo reserves its right to modify components and procedures in order to comply with their continuous improvement policy.		

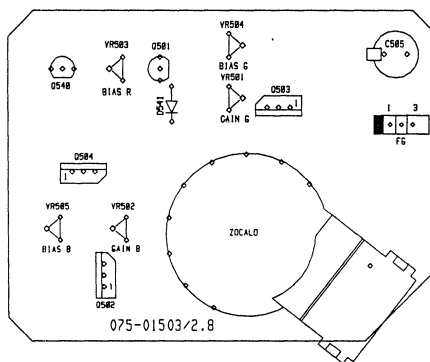
MAIN P.C.B. SOLDER SIDE

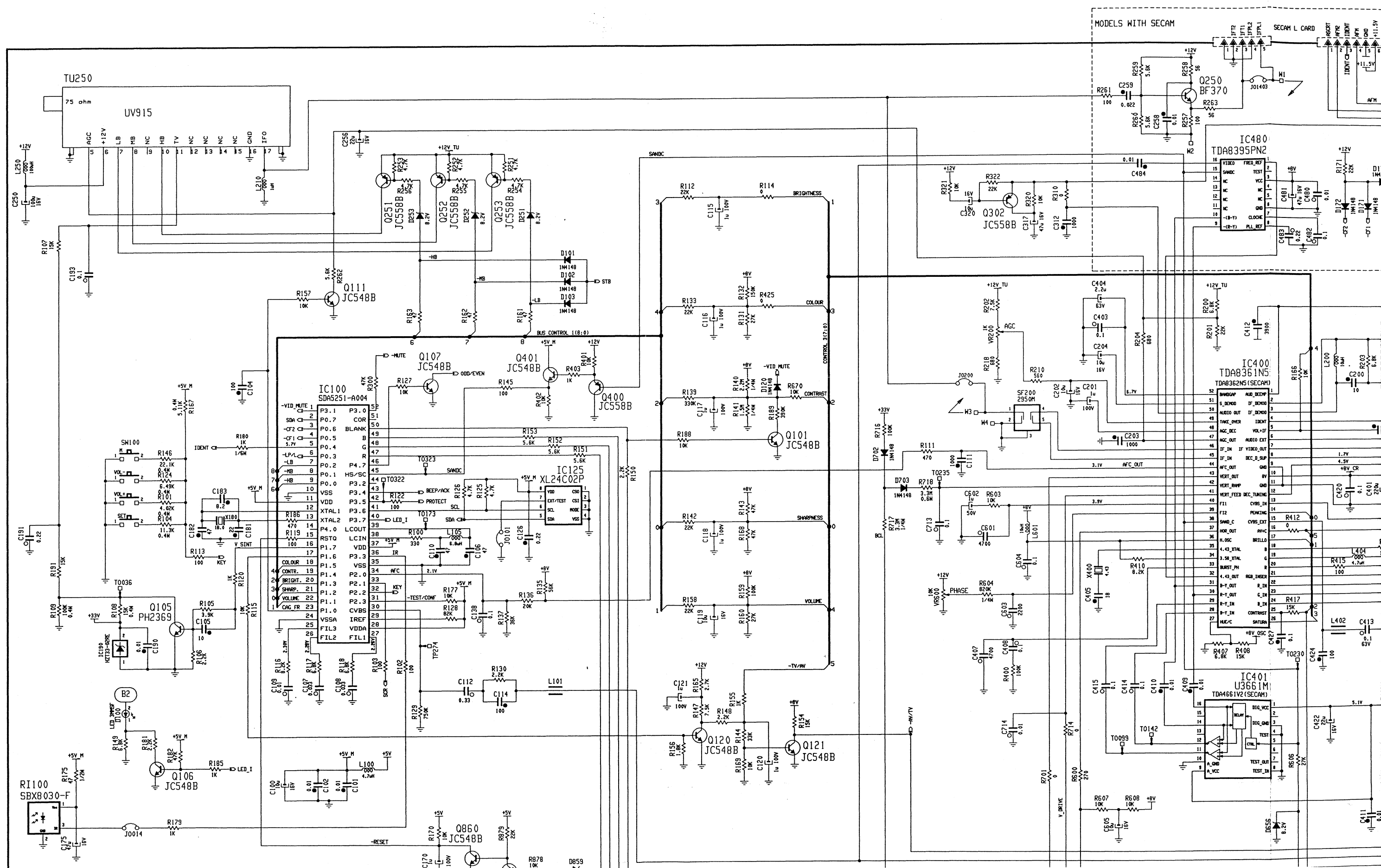
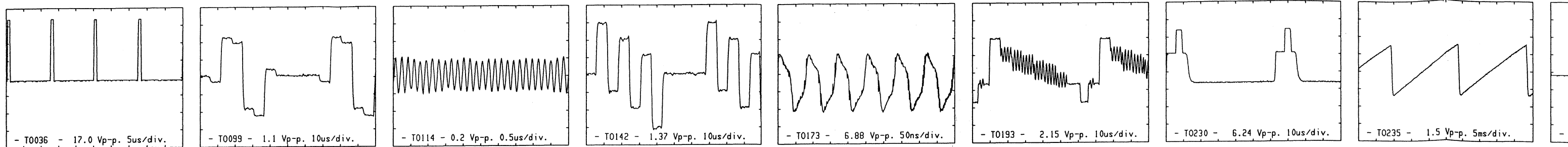


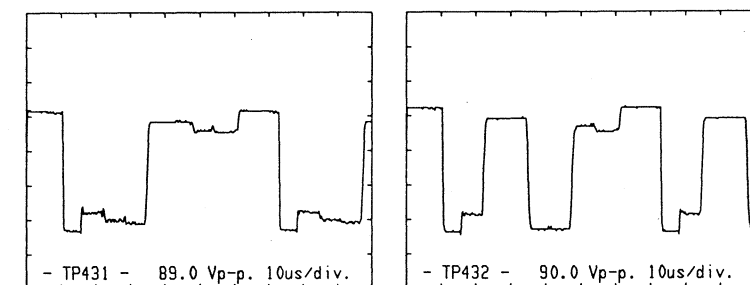
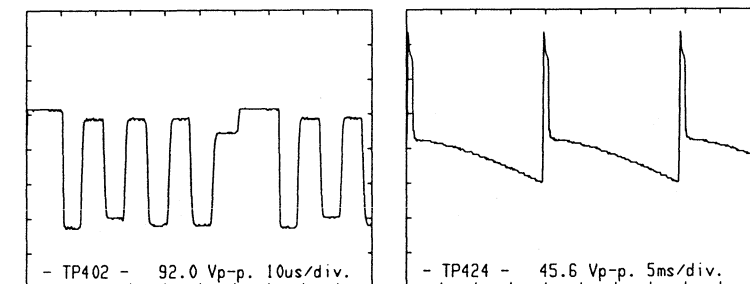
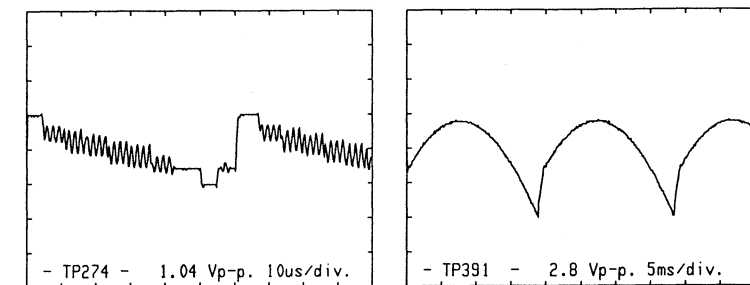
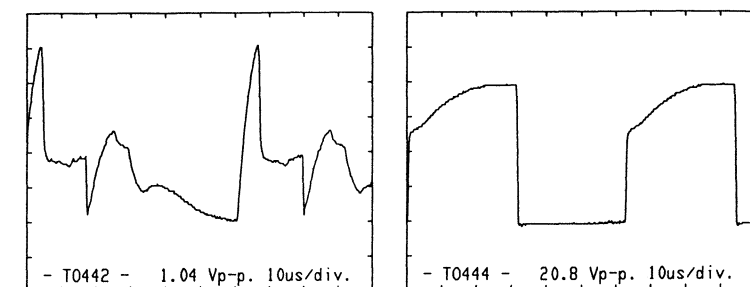
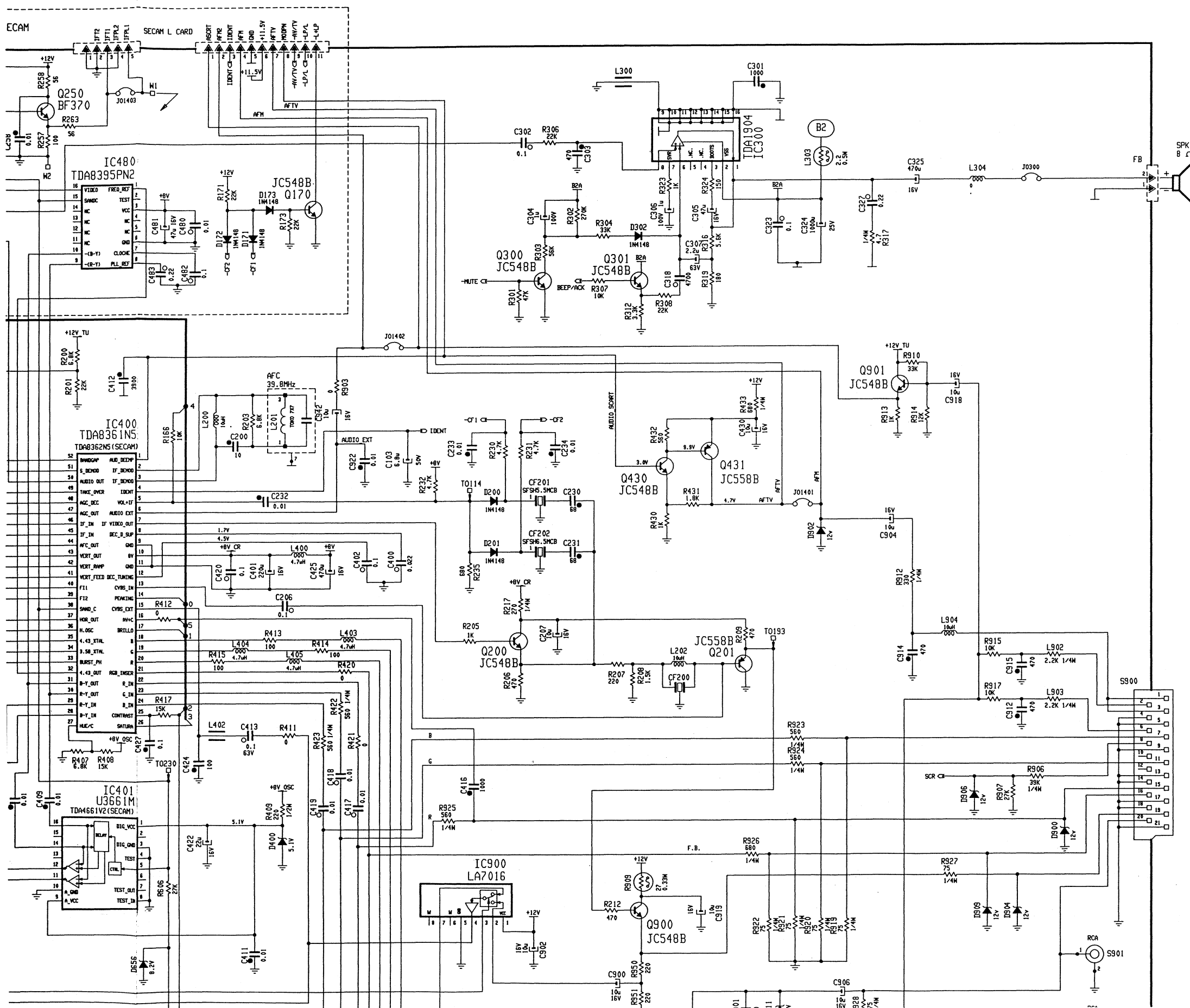
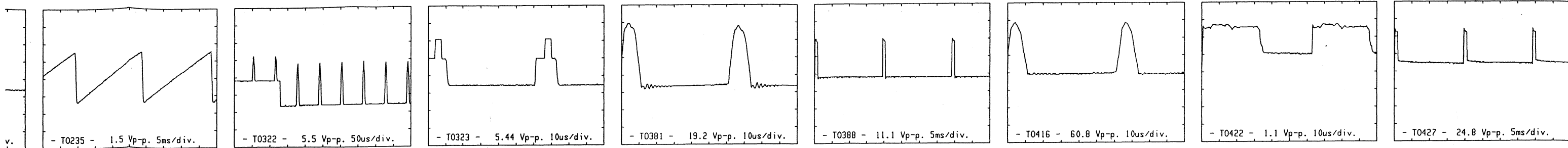
MAIN CIRCUIT COMPONENTS LOCATION



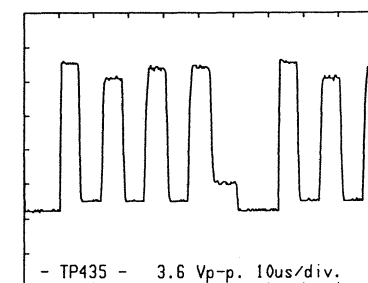
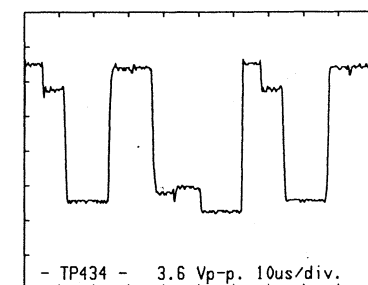
SOCKET CIRCUIT COMPONENTS LOCATION

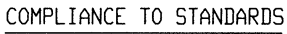






C.R.T. Comp.	A51EAL155X10 A51EAL155X11	A51EFS83X191
R522	390ohm 1/6W	360ohm 1/6W
R527	390ohm 1/6W	360ohm 1/6W
R528	360ohm 1/6W	390ohm 1/6W
C651	POLYPROPYL. 10nF 1.6KV	POLYPROPYL. 9.1nF 1.6KV
D661	BZX79C8V2	BZX79C5V1
L652	LH11J70SH-T10	LH11J105SH-T
R601	Metal Film 0.56ohm 0.6W	Metal Film 1ohm 0.6W
R641	4.7ohm 1/4W	25uH 1.5A



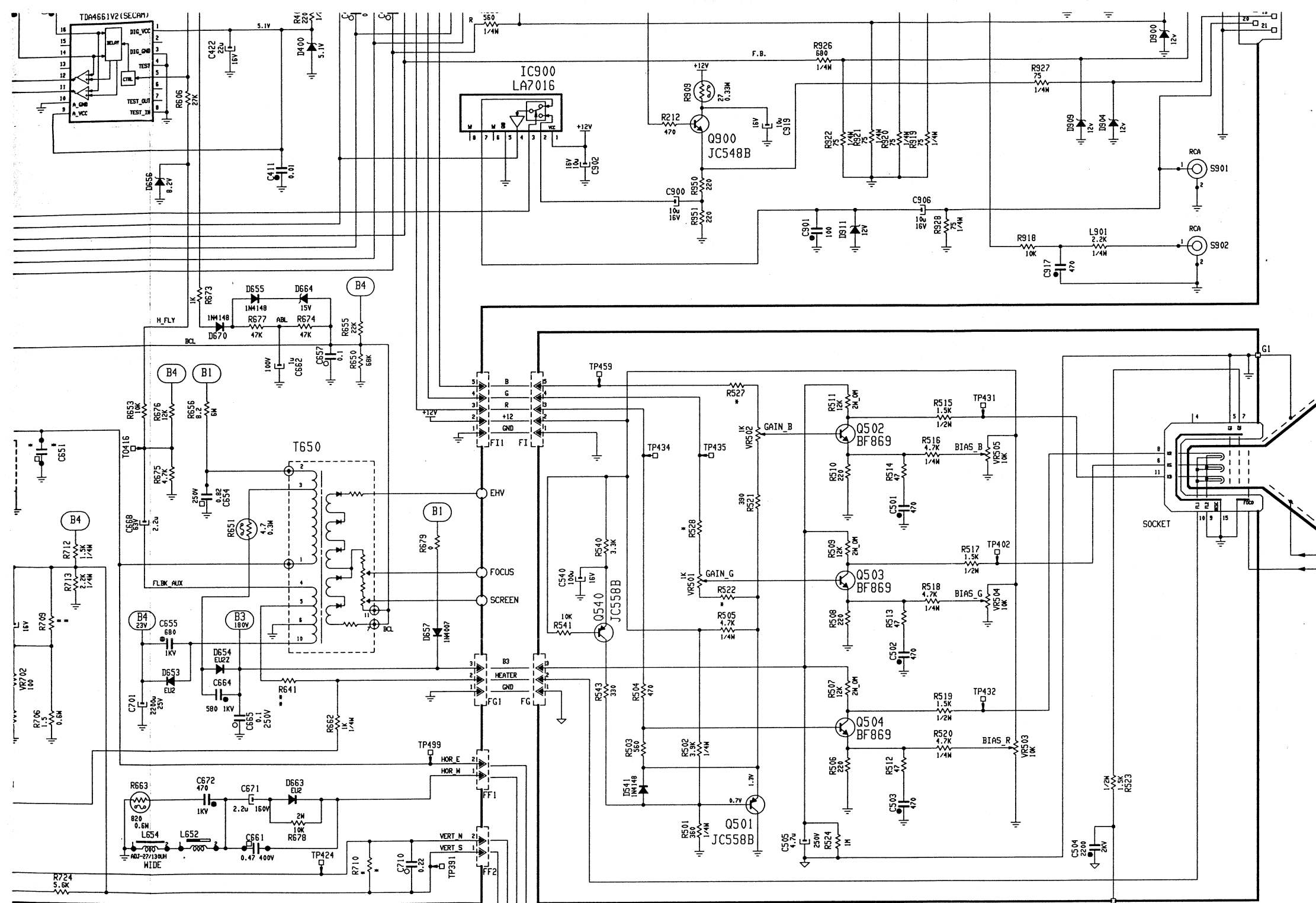


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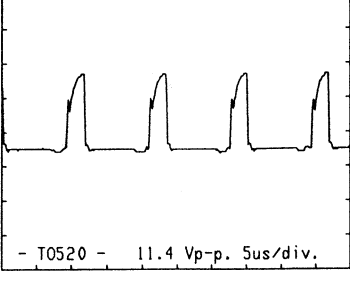
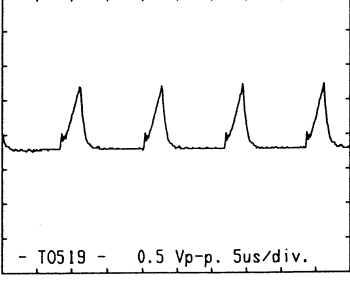
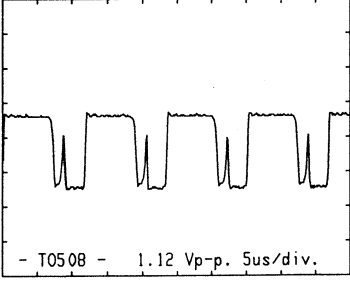
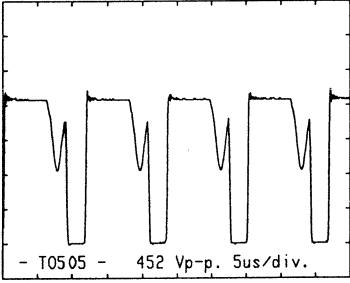
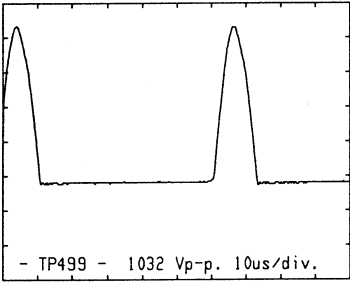
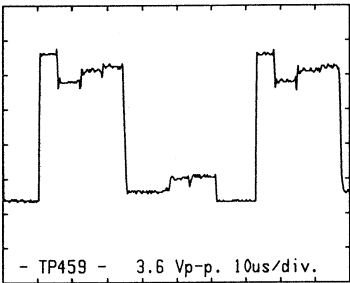
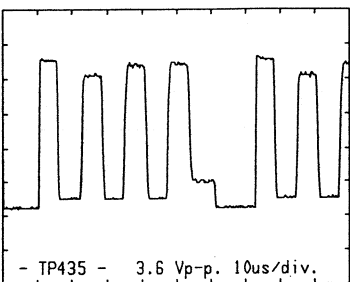
- SANYO**

Models: C2161TX-P
C2170TX-P

Chassis: 2096 (Serie EC-4A)

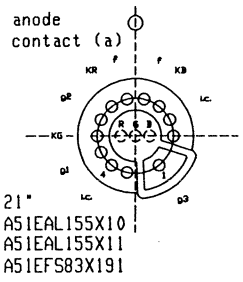
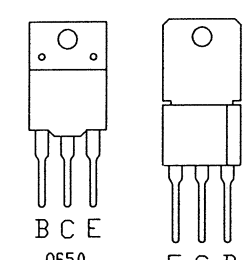
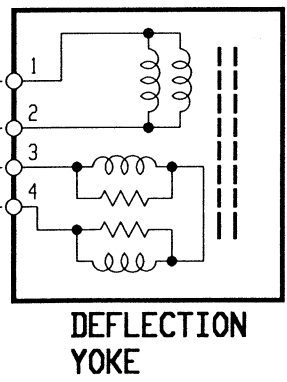


C651	POLYPROPYL. 10nF 1.6KV	POLYPROPYL. 9.1nF 1.6KV
D661	BZX79C8V2	BZX79C5V1
L652	LH11J70SH-T10	LH11J105SH-T10
R601	Metal Film 0.56ohm 0.6W	Metal Film 1ohm 0.6W
R641	4.7ohm 1/4W	25uH 1.5A
R709	1.5Kohm 1/4W	1.8Kohm 1/4W
R710	220ohm 1/2W	180ohm 1W

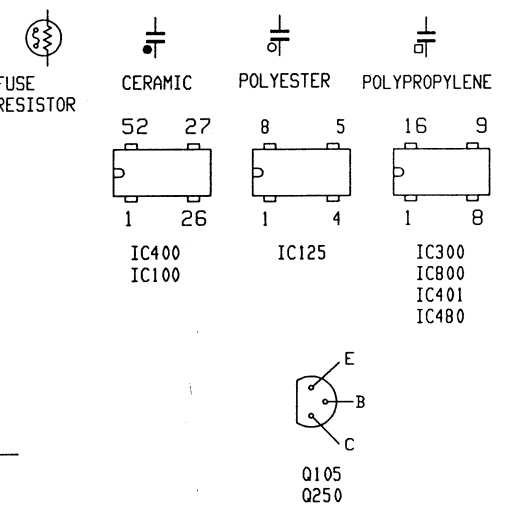


WARNING !!!
DO NOT JOIN THE
INPUT POWER LINE
TO GROUND THROUGH
THE OSCILSCOPE

Jan-16-98



- | | | | | | | |
|------|------|------|------|------|------|-------|
| Q101 | Q301 | Q852 | D101 | D653 | D701 | D853 |
| Q106 | Q302 | Q853 | D102 | D654 | D702 | D854 |
| Q107 | Q400 | Q854 | D103 | D655 | D703 | D855 |
| Q111 | Q401 | Q855 | D120 | D656 | D800 | D859 |
| Q120 | Q430 | Q856 | D200 | D657 | D801 | D900 |
| Q121 | Q431 | Q857 | D251 | D659 | D802 | D902 |
| Q200 | Q501 | Q859 | D252 | D660 | D803 | D904 |
| Q201 | Q540 | Q860 | D253 | D661 | D805 | D906 |
| Q251 | Q600 | Q866 | D302 | D662 | D806 | D909 |
| Q252 | Q703 | Q900 | D400 | D663 | D850 | D911 |
| Q253 | Q850 | Q901 | D541 | D664 | D851 | IC190 |
| Q300 | Q851 | | D600 | D670 | D852 | |



CODE: ES C2161TX-P